DEC 1957
Houston, Texas

November, 1957

SOAP and CHEMICAL SPECIALTIES

this issue...

Ivory, 50 years old, ects industry changes

* * * *

ice fluid manufacturing uires lots of know-how

* * * *

MA seeks uniformity in del caution labeling act

* * * *

itation maintenance in S. costs $4 billion a yr.

Jacob L. Barowsky, founder and president of Adell Chemical Co., Holyoke, Mass., stands at one of three automatic filling lines in new 60,000 square foot plant. Lines turn out 42 million bottles a year of "Lestoil" all-purpose liquid detergent. Story: Pg. 37.

SOLVAY quality CAUSTIC POTASH

in types, forms and packages to fit your requirements

TECHNICAL GRADE

SOLVAY Technical Caustic Potash is the quality standard grade product that has been recognized by users as a leader in quality and dependability for over three decades. It is produced in both liquid and dry forms. The dry product is produced in flake, small flake, walnut and solid forms, all of which are unusually low in iron, light in color and produce solutions of exceptional clarity. It is available in steel drums as follows:

Flake, 90-92%	**350 lbs. net**	(12-, 18-inch caps and full open head)
	100 lbs. net	
Small Flake, 90-92%	**400 lbs. net**	(12-, 18-inch caps and full open head)
	100 lbs. net	
Walnut, 90-92%	**200 lbs. net**	
	100 lbs. net	
Solid, 90-92%	**675 lbs. net**	
	100 lbs. net	

SOLVAY Technical Caustic Potash in liquid form is available in 45% strength in both returnable and non-returnable 55-gallon steel drums, 660 lbs. net, and in 45-52% strength in specially-lined tank cars of 4,000, 6,000, 8,000 and 10,000 gallons capacity.

MERCURY CELL GRADE

SOLVAY is the pioneer producer of this super-quality grade of commercial caustic potash. This material, which set a new standard for the industry for whiteness and purity, contains only trace quantities of metals and chloride, and is chlorate-free. It is available in both flake and liquid forms in the following packages:

Flake, 90-92%	**Steel drums—350 lbs. net**	(15-inch cap and full open head)
	100 lbs. net	
Liquor, 45%	**Returnable 55-gal.—660 lbs. net**	
	Non-returnable 55-gal.—660 lbs. net	
Liquor, 45-52%	**Specially-lined tank cars—4,000, 6,000, 8,000 and 10,000 gallons**	

Mail coupon for complete data, sample!

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Calcium Chloride • Potassium Carbonate • Soda Ash
Caustic Potash • Snowflake® Crystals • Caustic Soda
Sodium Bicarbonate • Ammonium Chloride • Chlorine
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Allied Chemical

SOLVAY PROCESS DIVISION
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Please send me without cost:

Samples of Technical Grade Caustic Potash

☐ Flake ☐ Small Flake ☐ Solid ☐ Walnut
☐ Liquid, 45% strength ☐ Liquid, 49-50% strength

Samples of Mercury Cell Caustic Potash

☐ Flake ☐ Liquid

Caustic Potash fact book ☐

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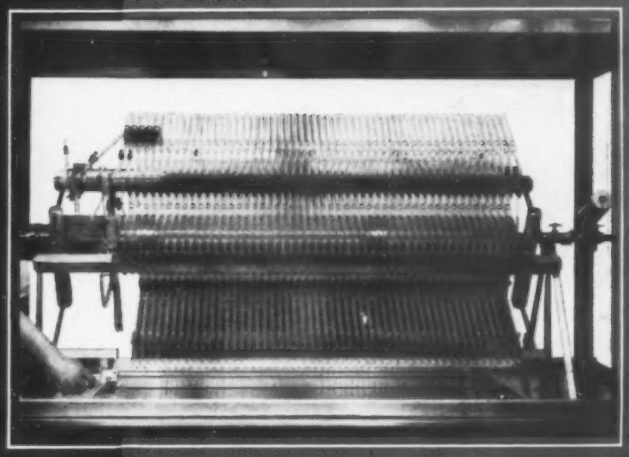

The rock-it power is hand power. Norda chemists supply it.

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PERMA KLEER ACID is chemically PURE ethylene diamine tetra acetic acid, and has the structural formula;

SPECIFICATIONS

Appearance . . . Fine white crystals
Molecular weight . . . 292
Melting point . . . 240° C. (with decomposition)
Bulk Density . . . 0.68
pH, aqueous solution . . . 2.0
Solubility in water . . . 0.02%
% EDTA (precipitation method) . . . 98.5% min.
% EDTA (titration method) . . . 99.5% min.
% amino triacetic acid . . . 0.5% max.
$CaCO_3$ chelated per gram . . . 342 mgs.
Residue on ignition . . . 0.03% max.
Heavy metals . . . 5 ppm max.

TYPICAL SPECTROGRAPHIC ANALYSIS

Metal	Percentage
Sodium	0.02
Calcium	0.004
Potassium	0.003
Barium	0.003
Aluminum	0.001
Chromium	0.001
Iron	0.001
Silicon	0.0005
Copper	0.0003
Lead	0.0001
Magnesium	0.00003
Manganese	0.00001

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SOAP and CHEMICAL SPECIALTIES

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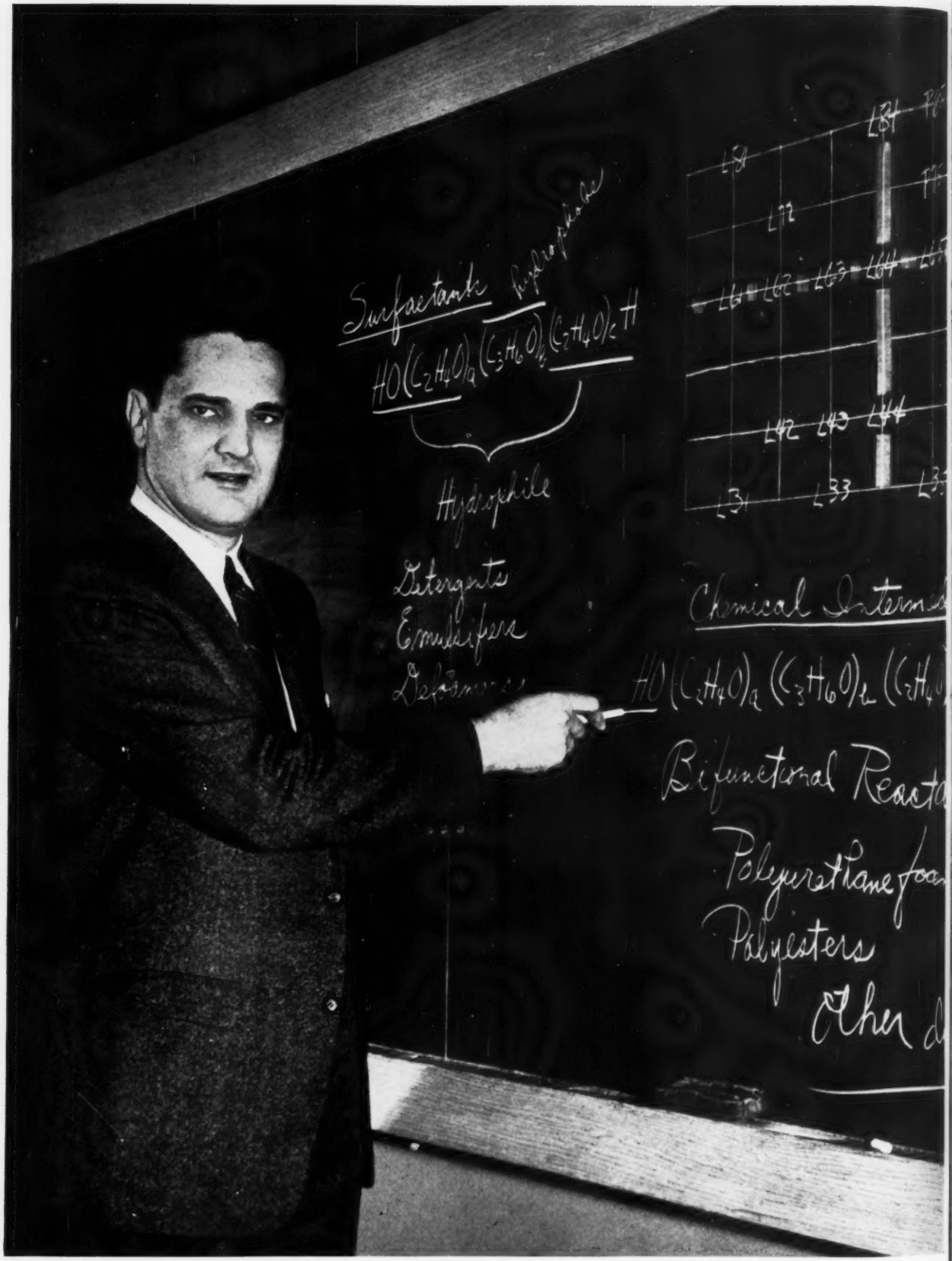

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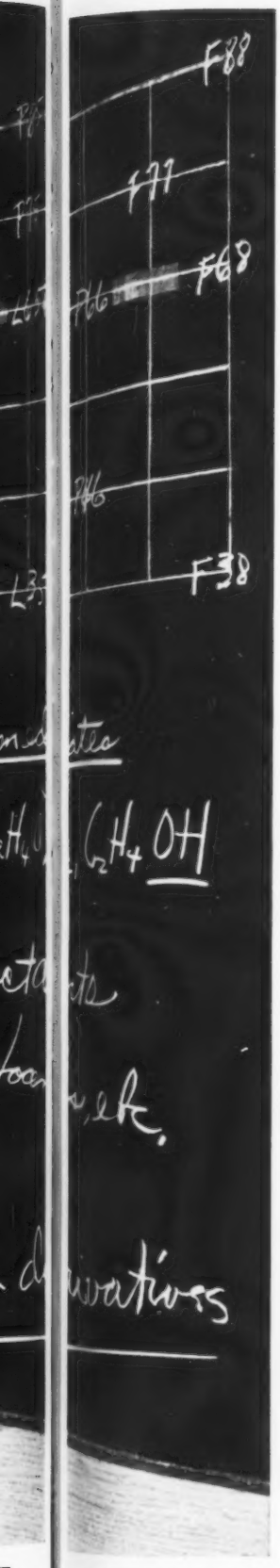

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"As may be seen, the system presented here has the outstanding advantage of inherent flexibility. The total molecular weight of the hydrophobic base and the hydrophilic portion can be varied in small increments over the wide range of 1,000 to 11,000. It is therefore possible to prepare a product to meet almost any requirement of molecular weight or of hydrophobic-hydrophilic balance. When studying the PLURONICS' chemical possibilities, they may be recognized as polyols or difunctional polyethers.

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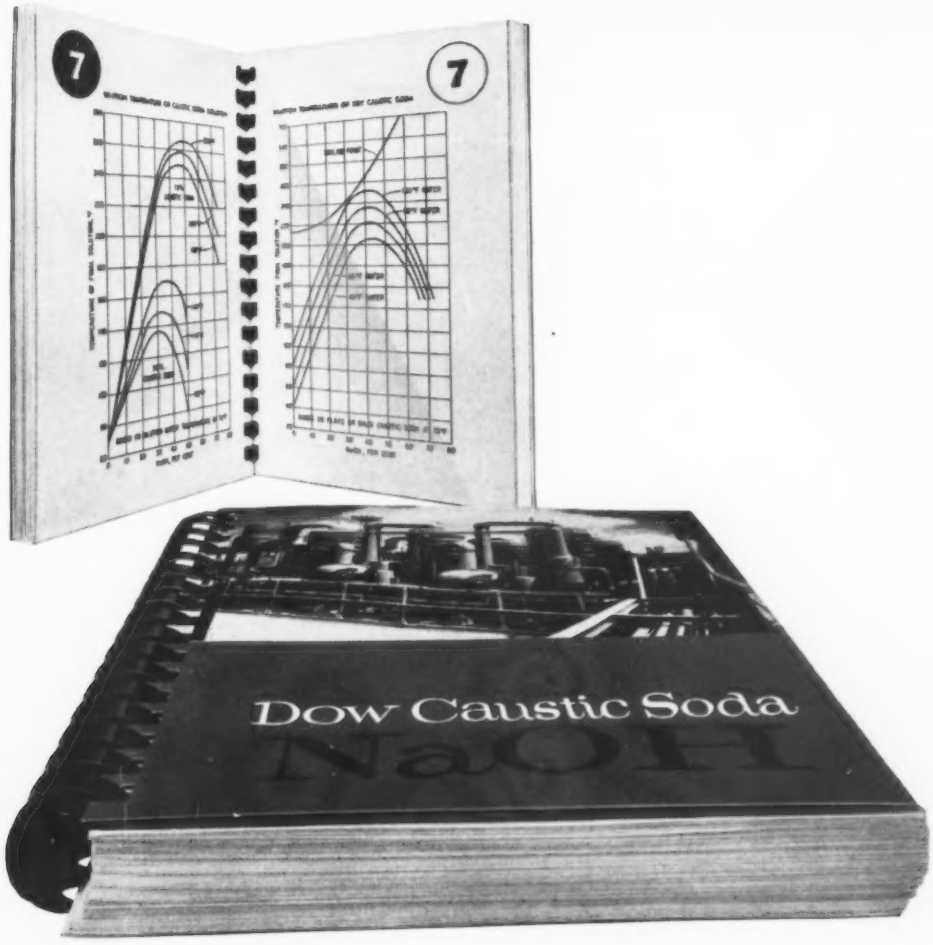

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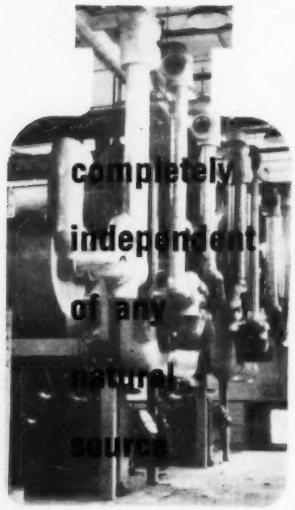

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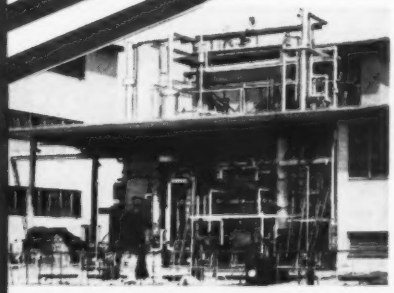

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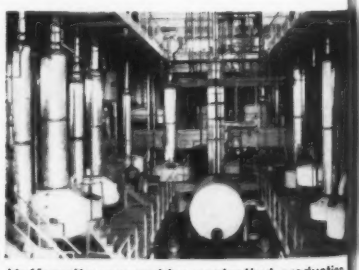

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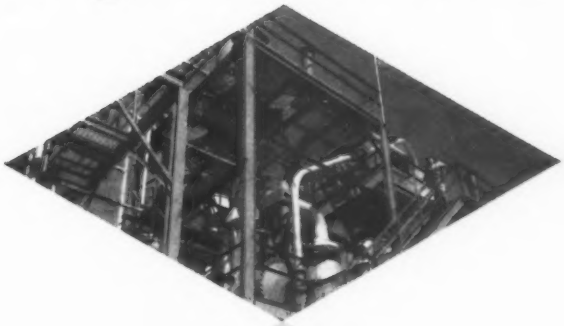
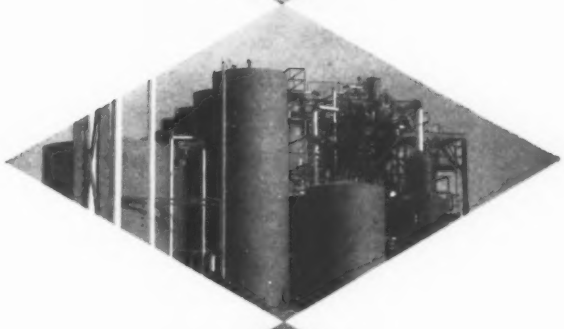
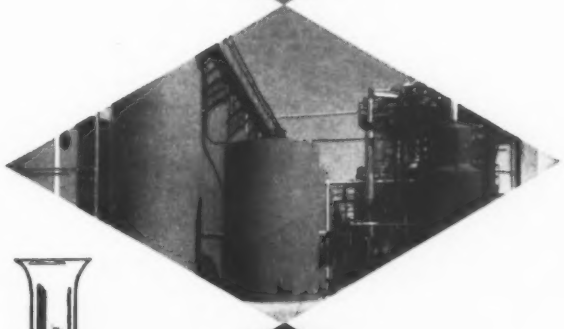
Stepan Methyl Esters







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Wetting Agents	**Plasticizers**
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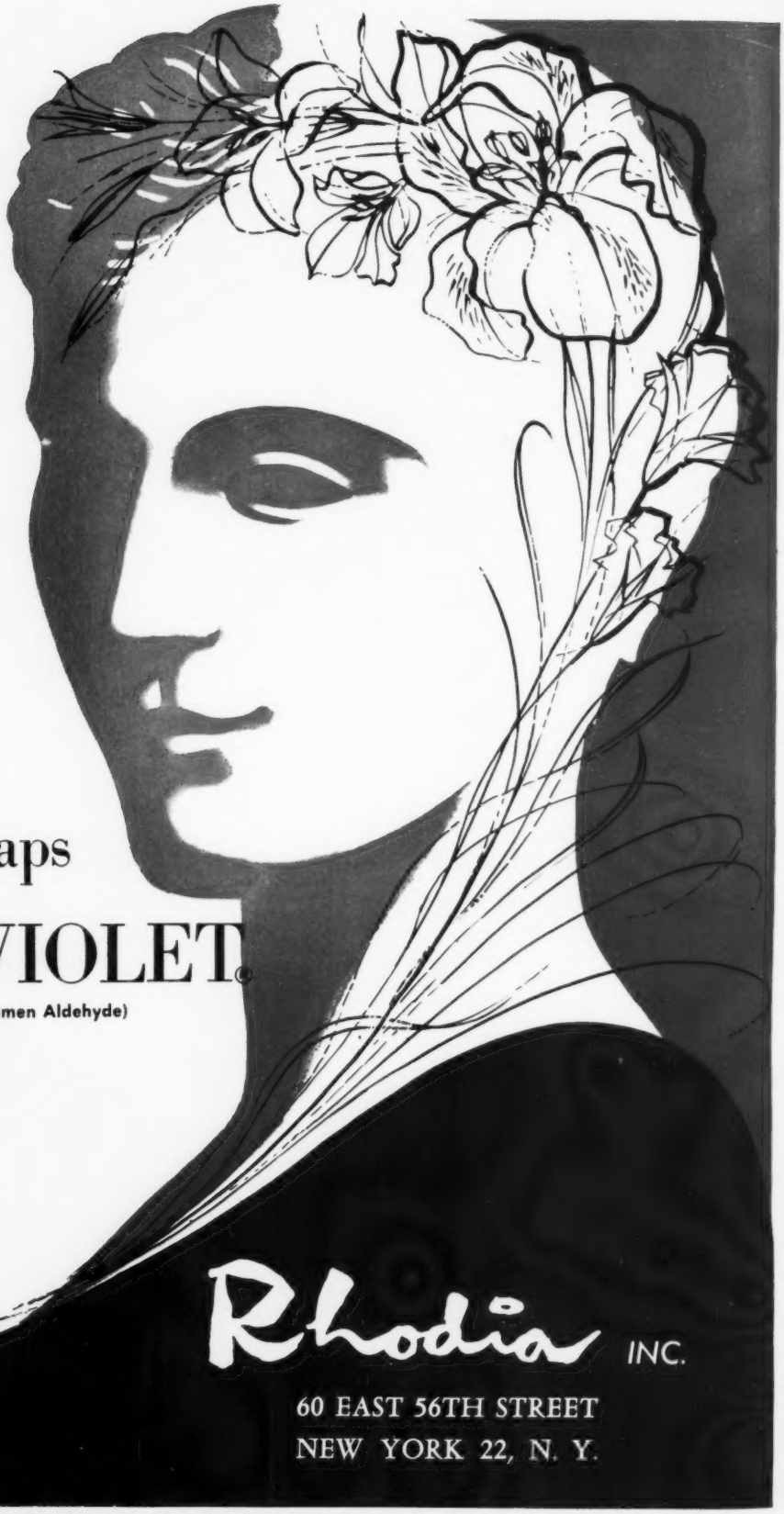

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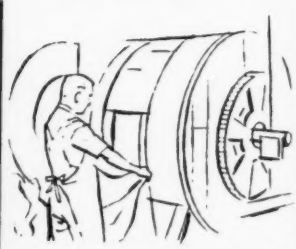
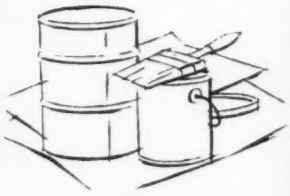
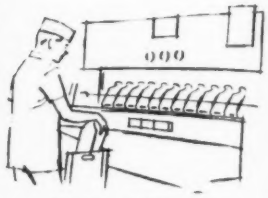


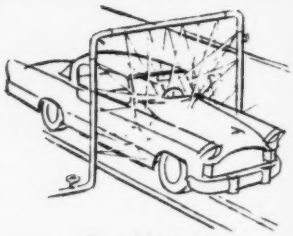
Dyeing and Finishing



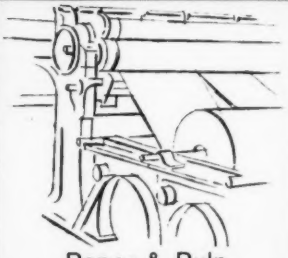
Paint



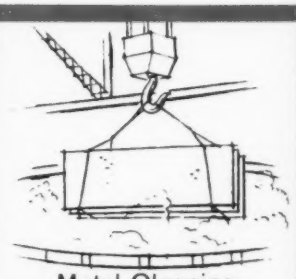
Bottle Washing



Car Washing

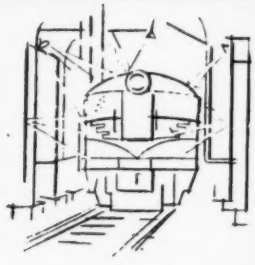


Paper & Pulp

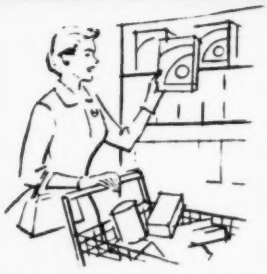


Metal Cleaning

Dairy



Railroad



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Liquid Detergents

Leather Processing

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Many uses of sulfuric acid and oleum result in substantial quantities of relatively high-strength, impure acid which present problems of handling and disposal. This is particularly true if you use it as an alkylation catalyst, or for sulfonating white oils, synthetic detergents, etc.

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After Closing

Acquires Franklin Research

Acquisition of Franklin Research Co., Philadelphia, was announced late last month by Philip

Charles La Roche

Morris, Inc., under a plan approved by the boards of directors of both companies. Complete details of the transaction were not announced. Until final arrangements are made, Franklin will operate as a unit of Philip Morris under its present management.

Franklin, a privately owned company, was founded in 1932. About 60 per cent of its volume is accounted for by the sale of polishes, waxes and emulsions for industrial use. The balance is represented by the sale of floor cleaners, detergents and other cleaners. Although its entire production facilities are located in Philadelphia, Franklin sells on a national basis through a sales force operating out of 26 cities. The company is headed by Charles E. LaRoche, president and director, who together with its present management, is one of the founders.

Commenting on the acquisition, O. Parker McComas, president of Philip Morris, said "the action is directly in line with the company's long range plan of extending logically its corporate activities through a policy of diversification. Thus, the extension of our interest into areas such as emulsions and finishes is a natural corollary to the corporate growth of Philip Morris." He added, "that the acquisition will cause no inconvenience to present customers and suppliers of Franklin, nor will they alter Philip Morris' buying policies as they relate to suppliers.

—★—

Alfred Stepan Dies

Alfred C. Stepan, 76, former district manager of du Pont's Elchem Division, died Oct. 22 after a long illness. He was the father of Alfred C. Stepan, Jr., president and founder of Stepan Chemical Co., Chicago.

Born in London, England, the elder Stepan came to the United States at the age of 13 and joined Roessler & Hasslacher Chemical Co., New York. He attended night school and received degrees from Cooper Union and Brooklyn Polytechnical Institute. Later he taught at both schools. He lectured in chemistry at Minnesota, Notre Dame, Purdue and Northwestern.

Mr. Stepan moved to Chicago as the district manager of Roessler & Hasslacher in 1916 and continued in that capacity after du Pont purchased the company until his retirement in 1943. He was past president of the Chicago Drug and Chemical Association.

Mr. Stepan is survived by his widow, Charlotte and two sons, Al Stepan and Dr. C. Edward Stepan, a pediatrician at St. Luke's Hospital, Chicago.

——★——

Audrey Langdon PR Firm

Audrey Langdon, formerly of Colgate-Palmolive Co., has started her own agency for public relations programs and public opinion studies, it was announced early this month. Prior to this new venture Miss Langdon was in charge of the public relations activities of Colgate's research and development department. In addition she directed and organized a research program on consumer needs and attitudes designed to guide the laboratories in the formulation of specialties with consumer appeal.

Before she joined Colgate,

Audrey Langdon

Miss Langdon was associated with Kenyon & Eckhardt, New York advertising agency, where she had directed studies on women's attitudes toward certain consumer products.

Recently she served as press representative on the Society of Cosmetic Chemists' conference tour in Europe. Miss Langdon is a member of the Fashion Group, National Home Fashions League, Cosmetic Career Women, and American Association for Public Opinion Research. Audrey Langdon's agency is located at 6 East 39th Street, New York 16, telephone OR 9-9078.

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Welch Acquires Tunley

Welch, Holme & Clark Co., New York, recently announced the purchase of Tunley & Co., New York, a 43-year old supply house of poppyseed, walnut and edible palm oil. Terms of the transaction were not disclosed.

Tunley will move its offices to the headquarters of Welch at 1 Hudson St., New York 13, and will operate as the Tunley Division of Welch, Holme and Clark Co.

CSMA Announces Full Program for 44th Annual Meet in Florida

AN up-to-the-minute report on the program for the 44th annual meeting of the Chemical Specialties Manufacturers Assn., to be held Dec. 9, 10, 11 and 12 at the Hollywood Beach Hotel, Hollywood, Fla., was released early in November by H. W. Hamilton, CSMA secretary.

Since this is the first resort meeting the association has held in nearly 10 years, the general program outline departs somewhat from those of the past few years. The main change, apart from the fact that the meeting will run for four days instead of the customary two or three, is in the scheduling of business sessions. At the Florida meeting these will be held during the mornings. In addition, there will be no formal group luncheons, which have been fixtures of recent meetings.

The Board of Governors' meeting Monday morning, Dec. 9, will be followed by a general session. This will be opened by a "Welcome to Florida," to be extended by Frank L. Holland, manager of the Florida Agricultural Research Institute, Winter Haven, Fla. Frederick Lodes of Lodes Aerosol Consultants, Inc., New York, will then present the aerosol package awards to the contest winners. Products entered in the competition will be on display throughout the meeting. The report of the nominating committee will be followed by election of CSMA officers for 1958. Featured speaker at the general session will be Philip W. Moore, president of First Research Corp., Miami, Fla. His address will be followed by the showing of a TV film on aerosols. Several committee meetings are set for the afternoon of Dec. 9.

Four CSMA divisions will hold concurrent sessions Tuesday morning, Dec. 10. Under the chairmanship of Harold G. Lederer (R. M. Hollingshead Corp.) the Automotive Division will hear Wanda L. Campbell, Chemicals and Materials Corp., Terre Haute, Ind., deliver a paper on "Specifications for Solvents to Clean Electric and Transportation Equipment". Miss Campbell will be followed by L. M. Lawton, Harrison Radiator Division of General Motors Corp., Lockport, N. Y. Mr. Harrison will present "Helpful Remarks to Manufacturers of Cleaners, Sealers, and Inhibitors for Future Automotive Cooling Systems". The Automotive Division has also scheduled a symposium on antifreeze. One of the speakers will be J. W. Compton, Wyandotte Chemicals Corp., Wyandotte, Mich. Part of the automotive program will be presented Wednesday afternoon, Dec. 10.

The Disinfectant and Sanitizers Division, A. G. Bowers, Pioneer Manufacturing Co., Cleveland, chairman, will also hold its opening session Tuesday Morning, Dec. 10. "Use of Bactericides in Secondary Oil Recovery" is the title of a symposium scheduled by this division. The following participants have so far been announced: F. B. Engley, Department of Microbiology, University of Missouri, Columbia, Mo.; L. S. Stuart, head, bacteriological unit, Pesticide Regulations Section, U. S. Department of Agriculture, Washington, D. C.; and S. S. Block, University of Florida, Gainesville, Fla.

Concurrent with the above sessions the Insecticide Division will meet under the chairmanship of Carlos Kampmeier, Rohm & Haas Co., Philadelphia. The following papers are scheduled by this division: "Insect Repellents" by Carroll N. Smith, U. S. Department of Agriculture, Orlando, Fla.; "What Kind of Pesticides Do We Need in Florida?", by W. A. Sidmanton, Citrus Experiment Station, Lake Alfred, Fla.; "Impact of the Miller Bill on the Manufacturer of Agricultural Chemical Insecticide Toxicants", by Thomas H. Harris, Pesticide Regulations Section, U. S. Department of Agriculture, Washington, D. C.; and a presentation by Homer E. Fairchild of E. I. du Pont de Nemours & Co., Wilmington, Del., on a subject to be announced.

Two Insecticide Division committee chairmen will present their reports: Mark L. Hill, Gulf Oil Corp., Philadelphia, chemical analysis committee; and Herman G. Schroeder, Fairfield Chemical Division, Food Machinery and Chemical Corp., Baltimore, scientific committee.

The fourth concurrent session to be held Tuesday morning, Dec. 10 is that of the Waxes and Floor Finishes Division under the chairmanship of H. J. Mellan, Durez Plastics Division, Hooker Electrochemical Co., North Tonawanda, N. Y. The following titles appear on the schedule: "Radio Isotope Testing for Wear of Polishes", by George J. Fuld, Massachusetts Institute of Technology, Boston, Mass., Melvin Fuld, Harry Broll, and Charles Pinchback, Fuld Brothers, Inc., Baltimore; "Status of Shellac in Polymeric Wax Systems", by Henry E. Blanchford, Mac Lac Co., New York; "Certain Basic Concepts of Film Formation", by Roland M. Avery, Jr., UBS Laboratories, Inc., Cambridge, Mass.; "Investigation of 'Lanfrax' as an Emulsifying Aid for Wax Dispersion", by George D. Burns and Daniel Schoenholz, Foster D. Snell Inc., New York; "The Application of Non-Emulsifiable Polyethylene in Both Solvent and Water Based Wax Systems", by R. E. Clark, Semet-Solvay Petrochemical Division, Allied Chemical & Dye Corp., New York.

The Soap, Detergents and Sanitary Chemical Products Division will held its sessions Tuesday afternoon, Dec. 10, and Wednesday morning, Dec. 11, with Clarence L. Weirich, C. B. Dolge Co., Westport, Conn., in the chair. The program includes a symposium on "Analytical Methods for Surfactants" composed of the following contributions: "Analysis of Alkyl

Benzene Sulfonates", by E. W. Blank, Colgate-Palmolive Co., New York; "Analysis of Alkyl Sulfates", by R. C. Stillman, Procter & Gamble Co., Cincinnati; R. C. Ferris, Purex Corp., South Gate, Calif., and John Wilson, Economics Laboratory, Inc., St. Paul, on subjects to be announced. Wednesday morning, Dec. 11, the Aerosol Division, with Charles E. Beach, John C. Stalfort & Sons, Baltimore, chairman, will open its session with a paper by Martin Barr, Philadelphia College of Pharmacy and Science, entitled: "Pharmaceutical Aerosols". Dr. Barr will be followed by L. J. Hecht, Lenmar Lacquers, Inc., Baltimore, on "Observations on Aerosol Protective Coatings"; and Thomas H. Reilly and Donald V. Brown, General Electric Co., Waterford, N. Y., on "Silicones and Their Use in Aerosols".

A report on the progress of the Aerosol Publicity Committee will be presented by its chairman, Frederick Lodes.

The Aerosol Division's scientific committee program will include a paper entitled "Gulf 'S.A.' Aerosol Valve", by A. J. Samuel and R. V. Sharpless, Gulf Research and Development Co., Pittsburgh, Pa.

A general session will be held Thursday morning, Dec. 12, which will be opened with an address of CSMA president, Harry E. Peterson, Peterson Filling and Packaging Co., Danville, Ill. H. W. Hamilton, executive secretary of CSMA will present the secretary's report, followed by P. C. Reilly, Reilly Tar and Chemical Co., Indianapolis, giving the treasurer's report. John D. Conner, Cummings, Sellers, Reeves & Conner, Washington, D. C., will present the report of the general counsel. Featured speaker of the session is R. B. Roberts, vice president and director, economic research, Florida Power & Light Co., Miami.

A number of committee meetings are scheduled for each of the four afternoons. Golf tournaments will be held Tuesday, Wednesday, and Thursday afternoons, in addition to tennis and other sports contests.

Special social events are planned for each evening, beginning with a mixer and reception with cocktails on Sunday evening, Dec. 8. A Hawaiian cocktail party in the garden will precede a Hawaiian poolside dinner and entertainment, Monday evening, Dec. 9.

On Dec. 10 the usual "Open House" suite entertaining will be replaced by an "Open House" party, consisting of special dinner features, entertainment, and dancing. Hosts will be industry suppliers who usually held "Open House" in their suites.

A cocktail party Wednesday evening, Dec. 11, will be followed by games of chance for paper money which will "purchase" prizes.

The farewell cocktail party, special dinner dance and banquet on Thursday, Dec. 12, will conclude with distribution of sports and door prizes.

An extensive ladies program has been planned to run concurrently with the meetings. This includes sightseeing trips, a fashion show, and all kinds of sports contests.

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Aerosol Contest Judges

The Chemical Specialties Manufacturers Association, New York, recently announced the names of the judges for the 1957 Aerosol and Pressurized Package Contest. The judging took place Nov. 13 at the Chemists' Club, New York. The judges are: Leigh Allen, industrial designer, J. Gordon Carr Co.; Maurice E. Bale, president, Harold F. Ritchie, Inc.; Arthur R. Botham, industrial designer; John Gerald, president, Hammacher-Schlemmer; Mrs. Edith Ramsay, *American Home* magazine; and Mrs. Paul Green, housewife.

Winners in 10 product classes and a "best of show" will be announced during the 44th annual CSMA meeting in Hollywood, Fla., Dec. 9-12.

One change in this year's contest is the listing of "Medicinal and Pharmaceutical Products" as a separate classification. These products, which replace "Snow" as class eight, formerly were listed under "Other Household Products."

The ten product classifications include:

Insecticides, repellents and mothproofers; room deodorants; paints enamels and other protective coatings and paint remover; other household products—polishes, glass cleaners, rug shampoos, water repellents, snow, etc.; shave products; hair preparations; other personal products—shampoos, body deodorants, sun tan oil, etc.; medicinal and pharmaceutical products; industrial products—lubricants, stencil inks, belt dressings, etc.; and glass and plastic aerosols—all products.

The basis of awards is general sales appeal of the complete package. All entries will be on display during CSMA's 44th annual meeting at the Hollywood Beach Hotel, Hollywood, Fla.

—★—

E. G. Thomssen Dies

Edgar G. Thomssen, 71, chemical consultant and long time contributor to *Soap and Chemical Specialties*, died in his sleep on November 4 at his winter residence in Bradenton, Fla. Born in India, the son of a missionary, he was graduated from Columbia University, New York with the B.Sc. in 1907, with a Ph.D. in 1911. He taught at Columbia from 1910-11 as an assistant in physical chemistry, then went with Lightfoot-Schultz Co. as a chemist. In 1913 he joined the U.S. Department of Agriculture in Washington where he stayed until 1914, when he returned to Lightfoot-Schultz, as vice-president and technical director until 1923. He then joined J. R. Watkins Co., Winona, Minn., where he remained as chief chemist and plant superintendent until 1944. Dr. Thomssen set up his own consulting firm in Winona and practiced there until 1954, when he moved to Hendersonville, N.C., where he had bought a home.

In addition to a monthly column appearing in *Soap* under the title "Production Clinic," Dr. Thomssen authored a number of books, including "Soap Making Manual" (1922); "Modern Soap Making" (1937) with C. R. Kemp

as co-author; "Modern Cosmetics" (1947); and "Soap and Detergents" (1949) with John W. McCutcheon as co-author.

Dr. Thomssen is survived by his widow, the former Grace M. Brinkerhoff.

—★—

Harry G. Shapiro Dies

Harry G. Shapiro, 62, founder and president of Industrial Soap Co., St. Louis, died Oct. 9 in Jewish Hospital of that city. He was associated with Procter & Gamble Co., Cincinnati, for many years prior to his founding of Industrial Soap in 1930. The firm manufactures soaps, sanitary chemicals and maintenance supplies. Surviving are his wife, Rosalind, and two sons, Robert D. Shapiro and Richard F. Shapiro, all of Clayton, Mo.

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Bruce Earnings Lower

E. L. Bruce Co., Memphis, Tenn., recently reported a decline in sales and earnings in the third quarter of 1957. Sales in the period dropped to $6,602,712 from $7,839,434, in the corresponding three months of the preceding year. A net loss of $12,798 was reported for the quarter ended Sept. 30, 1957. This compared with a net income of $220,739, equal to share earnings of 69 cents, in the previous year.

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POPAI Seminar Dec. 5

An all-day seminar, designed to present new data and techniques pertaining to the more effective use of point-of-purchase advertising, will be conducted by the Point-of-Purchase Advertising Institute on Thursday, Dec. 5 at the Plaza Hotel, New York. The theme of the meeting will be "New Guideposts to More Productive Merchandising."

Among the items discussed will be the sales, merchandising and budgeting of point-of-purchase, new customer motivation studies, trends at the retail level, integrated programming, new trends in display materials, and the cumulative effect of all these factors upon the total selling effort.

Cos. Chems. Honor Draize

The 1957 medal award of the Society of Cosmetic Chemists will be presented to John H. Draize,

John H. Draize

U.S. Food and Drug Administration, at the society's annual meeting to be held Dec. 10 at the Commodore Hotel, New York City. The presentation will be made at a medal award dinner which will follow an all-day technical program.

Dr. Draize is chief of the skin toxicity branch, Division of Pharmacology of FDA and has been instrumental in establishing adequate tests to assure safety in use of new cosmetic products.

The technical session will hear seven papers, including a presentation by Paul A. Sanders, Freon products laboratory, E. I. du Pont de Nemours & Co., Wilmington, Del., who will speak on "Aerosol Emulsion Systems."

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CSMA Nominates Ferris

James E. Ferris, Hooker Electrochemical Co., Niagara Falls, N. Y., has been selected by the nominating committee for the presidency of the Chemical Specialties Manufacturers Association, New York, for a term of one year. The committee chose Donald M. King, Masury-Young Co., Boston, as first vice-president for a similar term. Mr. Ferris is currently first vice-president of CSMA. Mr. King is the association's second vice-president.

Also nominated for 1958 posts are Dr. George W. Fiero, Esso Standard Oil Co., New York, second vice-president; P. C. Reilly, Reilly Tar & Chemical Corp., Indianapolis, treasurer; and H. W. Hamilton, secretary. Nominated to serve on the board of governors for terms of three years are Charles E. Beach, John C. Stalfort & Sons, Inc., Baltimore; Charles E. Allderdice, Jr., Bell Co., Chicago; and Harry E. Peterson, current CSMA president, Peterson Filling & Packaging Co., Danville, Ill.

Election of officers and directors will take place during CSMA's 44th annual meeting in Hollywood, Fla., Dec. 9-12.

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West Earnings Increase

West Chemical Products, Inc., Long Island City, N. Y., recently reported an increase in income and earnings for the nine months ended Aug. 31. Net income amounted to $540,100, equal to $1.24 cents per share. This compared with $446,300 and $1.01 in the similar period of the previous year. Sales were up by about five per cent this year.

—★—

To Make Diethyltoluamide

Cowles Chemical Co., Cleveland, is now producing diethyltoluamide, a new insect repellent developed earlier this year by the Army Quartermaster Research Laboratories and The U. S. Department of Agriculture. Termed by USDA as the best all-purpose repellent so far developed, the material is designed for use against mosquitos, deer flies, ticks, chiggers, fleas and numerous other insects.

Tradenamed "Detamide," the new product will be manufactured at Cowles' Skaneateles Falls, N. Y., plant. According to Frank F. Black, organic chemical sales manager, the product will be produced with a minimum meta isomer content of 95 per cent. Later, he said, the company plans to offer a product of 85 per cent meta content, to be known as "Detamide 85."

well, you might do it this way . . .

Some manufacturers will go to any lengths to make their products more appealing, more acceptable for today's odor-conscious market. However, the transformation of a product, handicapped by "chemical halitosis" is safest in the hands of experienced specialists.

Felton's chemists answer the problem of neutralizing or completely reodorizing your product with resourceful imagination, individual attention and skill.

They have played this part in the development of aromatics and deodorizing agents for industrial products as widely varied as . . . soaps, detergents, paints, insecticides, solvents, formaldehyde preparations, space deodorants, disinfectants, drip and cleaning fluids, latex, textiles and many others.

Send us your product sample for free analysis and odor recommendations.

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During the evolution of synthetic detergents as superior washing products Oronite ALKANE has played a leading role. From the early days of detergents to today's market of well over 3 billion pounds—Oronite ALKANE has remained the world's leading raw material.

Products that succeed and become leaders are those that excel competitively. This means the manufacturer must have vision—must anticipate market and customer needs. It means, literally, tomorrow's products today. Oronite's leading position has been earned competitively by developing a superior detergent raw material, by pricing it fairly, by helping the soap industry advance the technology of detergent making, by providing better research and technical service and by establishing distribution facilities to meet customers' convenience.

And, of course, out front you *do* see ahead best. Right now, Oronite is working on raw materials the soap industry will require in years to come. Pioneering is a habit at Oronite. Oronite's continuous multi-million dollar research, product development and manufacturing program attest to this.

Oronite ALKANE is the standard of quality, the unduplicated raw material of the detergent industry. *Why not benefit from experiences of the leader? You should know the complete Oronite ALKANE story.* Just contact the Oronite office nearest you.

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More than just a detergent, "News" bleaches and blues clothes as it removes stubborn dirt, yet is safe for any fabric. In this detergent "plus," the dirt-suspending properties of Hercules® CMC float dirt particles down the drain. When CMC is included in a detergent formula, dirt is always rinsed away, never redeposited on clothes.

If you haven't investigated the advantages economical Hercules CMC can bring to your commercial or home laundry product, write today. Hercules will be glad to furnish complete technical information and a testing sample.

NEW BLUE "NEWS" is "safe for everything washable" according to its manufacturer, The Purex Corporation Ltd., 9300 Rayo Avenue, South Gate, Cal. Detergent is packed in convenient 1 lb. 2 oz., and 2 lb. 7 oz. packages.

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HERCULES POWDER COMPANY

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Detergent Mixers:

Nacconol® DBX *combines* all the best features of spray-dried and flake detergents!

Here is the *first* 40% active spray-dried alkyl aryl sulfonate that is as *dense as most flake materials!*

NACCONOL DBX costs you no more yet gives you . . .

EASIER HANDLING! NACCONOL DBX is essentially dustless. It's always free-flowing, does not tend to cake or lump even in damp weather!

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send a Nacconol DBX sample to:

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- Ethyl Amyl Ketone
- Diacetone Alcohol
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- Neosol® Solvent
- Isopropyl Alcohol
- Methyl Isobutyl Carbinol
- Hexylene Glycol
- Secondary Butyl Alcohol
- Isopropyl Ether

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SHELL

... about detergents

SOAPS AND DETERGENTS

SYNTHETIC DETERGENTS

by E. G. Thomssen and John W. McCutcheon

by John W. McCutcheon

THE latest and only complete American book on soap and detergent manufacture. This 511 page practical text is designed for the production man, chemist or executive and covers such subjects as soap making methods, equipment and machinery, raw materials, perfuming and coloring, glycerine recovery, and properties and applications of finished soap and detergent products. No soap or detergent laboratory, plant or office should be without this standard volume.

A PRACTICAL 435 page book concerned primarily with the detergent compounds. Defines the various types of synthetics as to class, manufacture, application and processing. Presenting an adequate theoretical background on fundamentals of surface activity in addition to a thorough analysis of the raw materials and manufacturing processes involved, this text will be of interest to all those involved with the manufacture, packaging, application and processing of detergents as well as those supplying raw materials.

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Essential Oils

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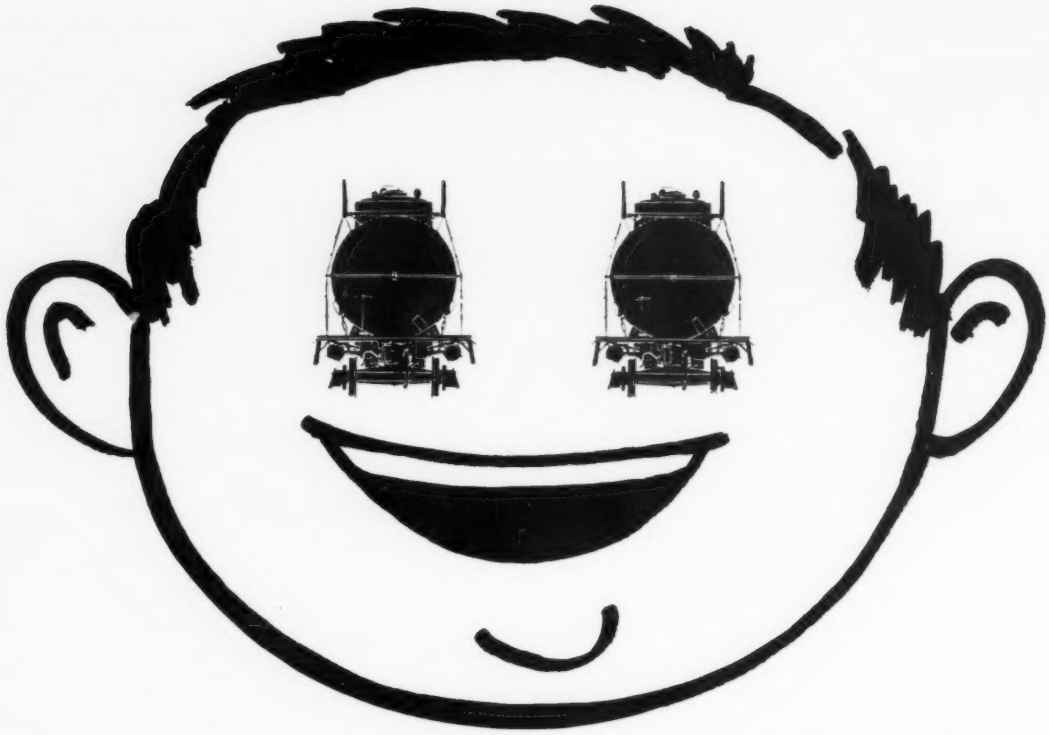

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CAUSTIC SODA
Liquid 73%
Liquid 50%, Regular
and Low — Chloride Grades
Flake, Solid and Ground, 76% Na_2O

CAUSTIC POTASH
45 and 50% Liquid; Flake and Solid

SODA ASH
Refined, Light and Dense
Natural, Light and Dense

Sitting atop vast brine fields, our modern electrolytic caustic-chlorine operation at South Charleston, W. Va. is one of the largest in the industry.

From this strategic location we give exceptional service to alkali users in the industrial areas of the Midwest, Mid-South, Middle Atlantic States and New England. Frequently we're hours or days closer by rail, truck or waterway than producers who are nearer on the map.

On soda ash, too, we have much to offer.

From immense deposits of pure trona at Westvaco, Wyoming we refine a rapidly-soluble soda ash that is chemically purer, low in iron, free-flowing and non-dusting. We can probably give you a bigger value for your money on your soda ash needs.

For quality, value and service, you, too, will be "sitting pretty" when you specify Westvaco® Alkalis.

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FOOD MACHINERY AND CHEMICAL CORPORATION

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. . . in brief

. . . as the editor sees it . . .

PENALTY. . . . The average small laundry bleach manufacturer may view with some glee the recent citation of Procter & Gamble by the Federal Trade Commission for taking over Clorox. We suppose it's a natural reaction. The small fellow always likes to see his big competitor get socked, justly or otherwise. But if FTC is really serious in its rebuke to P & G for its "dominant ability to monopolize the market," then the complaint becomes either sinister or silly. And in the interest of just plain fairness, no business man, large or small, can honestly condone the FTC action.

In the first place, P & G did not buy out a competitor. They were not in the liquid bleach business. Had Joe Blow bought Clorox, nothing would have been done. But because a large, eminently successful merchandiser buys the product, they immediately assume a position of "dominant ability to monopolize the market." If it's monopolistic to be large and successful,—albeit giving the public what it wants at competitive prices,—then our ideas of private enterprise must be revamped.

And Clorox had 48 per cent of the bleach market before P & G bought it. Why then did FTC wait six months until the deal was consummated before charging monopoly? Could it be that P & G presents a larger and shinier target, one conducive to wider publicity?

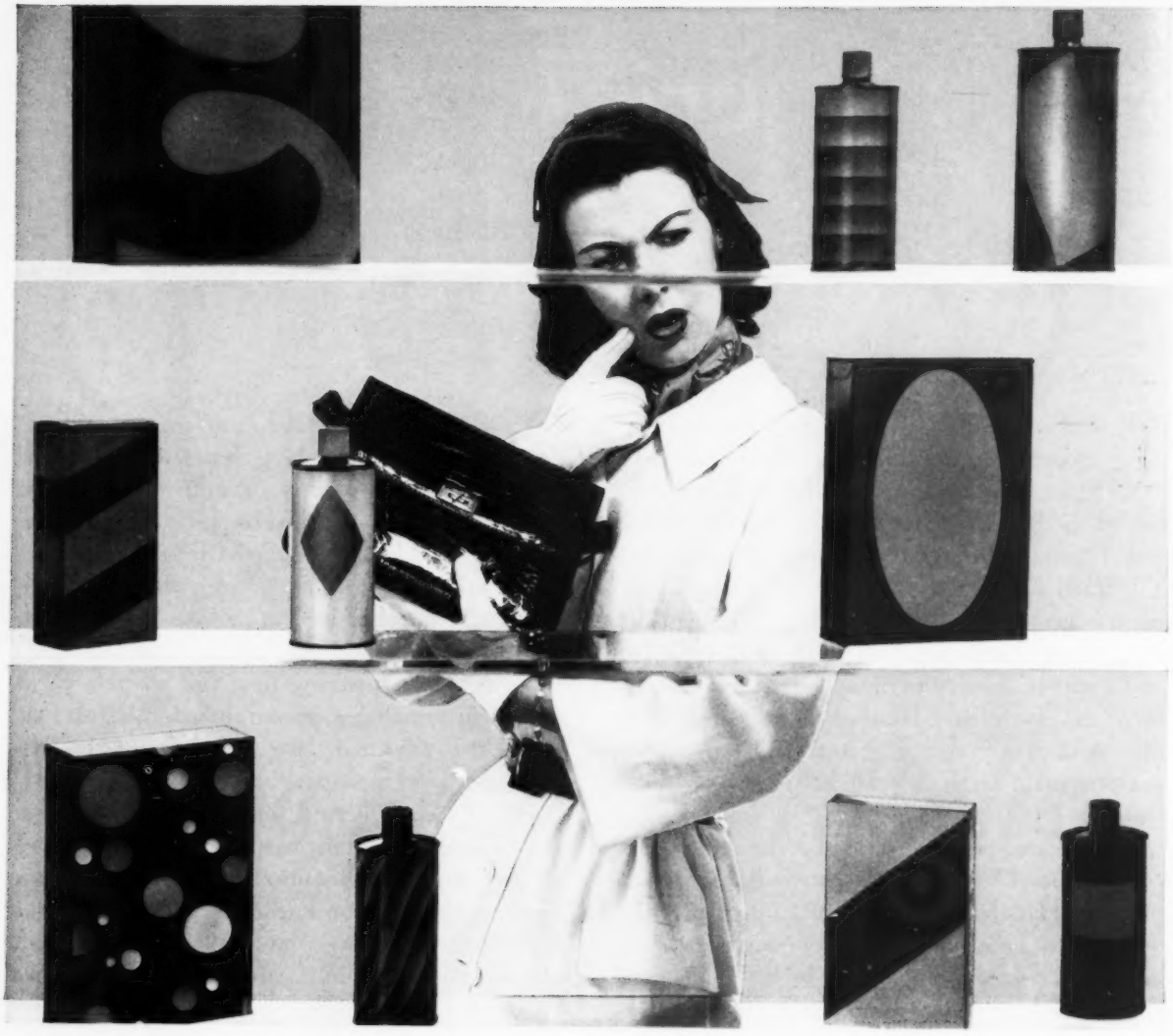
Obviously, P & G bought Clorox to diversify, to aid in protecting the tremendous investment of its thousands of stockholders. A rather unique cause for FTC action. Developments in soaps and detergents over the past twenty years make such diversification more vital today than ever before. So P & G pays the penalty for success, for management which is determined to protect the future of its business.

WHAT CHANCE? . . . Does a small firm, making and selling household chemical specialties locally, stand a chance of breaking into the so-called big time and have one of its items land on the shelf of a supermarket? The answer, obviously, is yes,—theoretically—unless the item happens to be soap, detergent or breakfast food.

Visiting the spanking new and sizeable plant of a firm which has accomplished this feat, we asked the president how he managed it. His answer: "good product, and marketing knowledge." That's all! And yet, basically, these are still the necessary components of the success story of any product. Because this particular plant happens to be a monument to the efforts of the head of the company who developed the product and marketed it, in a small way at first, we thought we'd mention it for the benefit of small firms. Who knows, tomorrow they, too, may stumble on the key to success and wind up as large firms.

* * * * *

MODEL BILL. . . . Recognizing the need for, and the inevitability of, state and federal laws calling for precautionary labeling of retail packages which may contain hazardous substances, the Chemical Specialties Manufacturers Association has just completed a model bill of its own. The bill is believed to be realistic, workable and provide the required protection for the consuming public. It was prepared by the Precautionary Labeling Committee of CSMA, which has given long and thoughtful study to the bill. In addition, the entire membership of the association has had an opportunity to review the bill and make suggestions, many of which are incorporated in its present form.



Win her approval

perfume your detergent with Givaudan *Tergescents*®

Women are always "fragrance-conscious"—a pleasant scent is often the prime factor in her repeat purchases. You can key your household detergents to her preferences with low-cost Givaudan *Tergescents.*

These powerful, appealing fragrances—for liquid or powdered detergents—are especially developed to assure your detergent's success. They will give you outstanding consumer acceptance at very low cost.

Givaudan will be glad to recommend the type of *Tergescent* that is best suited to your product...or we can custom-make a fragrance that exactly fits your specific needs.

GIVAUDAN

GIVAUDAN-DELAWANNA, INC.
330 West 42nd Street, New York 36, N. Y.

Why a model bill? First, to present to the legislator and the public the thinking, based on experience, of manufacturers of products directly affected by such a law. The bill proposed by CSMA, incidentally, also closely resembles those already introduced in Congress.

Secondly, CSMA has formulated this bill primarily to achieve uniformity in Federal and state laws. Instead of having to design labels to comply with different laws of 48 states, one label will do the trick. The public gets its protection and the manufacturer's job being simplified can result in savings in the cost of the finished product.

* * * * *

SALES MEETINGS. . . . Are sales meetings drifting away from the purpose for which they are intended, viz., the instruction and enlightenment of salesmen? Are they becoming annual sprees at plush resort hotels where so-called top management can spread its feathers and satisfy its vanity by making long, dull speeches before a captive audience?

Yes, say many salesmen, who prefer no sales meeting at all to those incorporating the features outlined above. Poor planning, lack of opportunity for the salesman to participate in the discussion or air his gripes are most frequently heard criticisms of the poor sales meeting. Distributor salesmen are particularly unhappy about sales meetings conducted for them by some manufacturers. They make no bones about characterizing poorly run meetings as a waste of time.

Although we are aware that salesmen do tend to exaggerate, based on our own observations of sales meetings we realize that where there is smoke there may be fire. Manufacturers might do themselves a favor, and even save some money, were they to dig into this question and get the facts.

* * * * *

SCIENCE. . . . The New York Pest Control Association is undertaking a publicity program which aims to tell the public about scientific pest control. The first project in the new program deals with the new resistant strains of cockroaches, why they are resistant and what emergency measures are being carried out to circumvent this resistance. Advice on ways in which industry and institution can help to prevent roach invasions will be passed out.

Well, we guess it's a good idea to get after these resistant roaches. They can be annoying when one gives them the works with the old stand-by insecticides and they just laugh it off and continue about their business. We can't imagine anything more vexatious than a defiant cockroach. But NYPCA had better be careful and not tell the dear old public too much, that is if they want to continue to do the extermination jobs. Surely, they are familiar with the current "do it yourself" trend. And when they find out the real cause of resistance, they had better pass word along to our entomologists. It's amazing how anxious these fellows are to find out what's behind all this resistance business.

* * * * *

NOT THE PLACE. . . . Nothing is more alluring and fascinating than to witness a beautiful woman in lovely evening gown and to catch a whiff of her seductive fragrance as she glides by. Then by contrast, what a shock one receives, still remembering that entrancing experience, by walking into a wash room, sometimes vulgarly referred to as the "john", and finding the atmosphere reeking with that same "fragrance." It brings to mind the old adage, "a place for everything and everything in its place,"—a convincing argument that the "john" is no place for perfumes.

The foregoing was the essence of an advertising piece put out by a deodorizer manufacturer who tells us to put perfumes back in milady's boudoir, but to keep our wash rooms smelling sweet and clean, without any odor, just garden freshness.

We quite agree with this fellow that an office building or factory toilet should not smell exactly like "up in Mary's room." At the same time, to keep a public toilet clean and odor free unless it is cleaned every hour or two is a tough proposition. That's why wash room chemicals are perfumed. If they are sensibly perfumed, the place does not smell like a lady's boudoir. In practice, completely odor-free public toilet rooms are rare. That's why after many years of experience, the sanitary chemical manufacturer spends the money to perfume his products.

You'd have to go a long way to find these properties

...so specify

NOPCO HYONICS

HYONIC PE 250

(100% active nonionic alkyl aryl polyether alcohol)

Gives high, persistent foam

Effective over wide range of water hardness and pH

Excellent wetting agent and emulsifier

Extremely stable in presence of acids, alkalis, inorganic salts including heavy metal salts

A powerful detergent

Suggested uses—dairy detergents and milkstone remover, car wash, antiseptic sanitizer, paint and woodwork cleaner

HYONIC FS

(100% active lauric acid alkylolamide condensate)

Superior foam stabilizer for anionics

Remarkable thickening action over a wide range of concentrations

Non-corrosive—can be stored indefinitely

Excellent detergent and wetter and shows remarkable synergism when blended with anionics or nonionics

Suggested uses—liquid dishwasher, clear liquid shampoo, bubble bath

No, it isn't necessary to explore the universe for your detergent aids since Nopco Hyonics will undoubtedly provide just exactly the properties you need and Nopco technical men will work right with you to help you produce detergents of your own specifications.

Write today for complete data on Nopco Hyonics.
Nopco Chemical Company, Harrison, N J

NOPCO

PLANTS: Harrison, N. J.
Cedartown, Ga. • Richmond, Calif.
London, Ont. Canada

as the reader sees it . . .

We Err Says Titan

Editor:

We certainly appreciate your write-up of Titan in the September issue of *Soap & Chemical Specialties* — except for one thing. Where did you get the false information about us marketing hair spray in four and one-half ounce plastic coated bottles? Obviously, we hope to get into using bottles, but not for some time. At the moment all of our publicity and advertising will be concerned with packaging in standard metal aerosol containers. However, regardless of this one error, we should like to have a few tear sheets of page 154 of the September issue.

Titan is located in Colorado Springs for a number of reasons: one is that several of its founders are Colorado residents; also there is the wonderful climate; a third is to serve the growing populations out here.

Consuelo Kuhn
Titan Chemical Industries, Inc.
Colorado Springs, Colo.

Perhaps our information about Titan packing in glass was premature, but we still feel our source was unimpeachable —as the newspapers say. We asked Miss Kuhn in an earlier letter about the reasons for Titan locating in Colorado Springs—thus her explanation. We presume she is talking about the "business climate," when she mentions "climate." Anyway, good luck to the newest member of the aerosol loading fraternity and welcome to Chemical Specialties Manufacturers Association. Ed.

★

Cost Correction

Editor:

I note that in our paper Tall Oil Fatty Acids in Floor Wax," published in the September issue of *Soap and Chemical Specialties*, there is an error in the second paragraph of the final column on page 115. The text "20¢ and 20¢ were taken as the price of oleic acid and TOFA, respectively" should read "20¢ and 10¢ were taken . . . " Since this affects the entire cost calculations presented in the paper, it would be appreciated if you will publish the corrected statement in an early issue.

Ashley D. Nevers
Sales Services Department
Pennsalt Chemicals Corp.
Philadelphia 18.

One of our sharp-eyed proof readers caught this one on a page proof, but because the authors did not correct the error on the galley proof we sent to them, and our original copy also carried the error, we had to let it go. Sorry. Ed.

★

Coconut Oil Tax

Editor:

I noticed in the September issue of *Soap and Chemical Specialties* an article about the repeal of the coconut tax.

Inasmuch as we are importing substantial amounts of soap, we thought that this repeal would apply to our imports. However, much to our surprise, we were informed that the import tax, as per section 4581 and 4511 (b) remains in effect. We thought that you would like to know about this, and that you might like to print a correction in one of your next issues.

Stephen H. Mayer
Mem Co.
New York 3

For the benefit of others, who like Mr. Mayer, may be confused, the three cent processing tax on all coconut oil, whether from the Philippines or elsewhere has been removed. However, the two cent processing tax on non-Philippine oil still remains. In addition there is a one cent per pound import duty on coconut oil from sources other than Philippine. Ed.

★

Enjoys, Needs Soap

Editor:

I have enjoyed your magazine so much in the past several years while I was working at the Physical Plant Department of the

(*Turn to Page* 193)

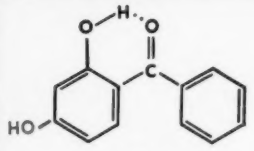
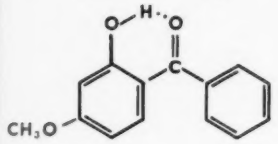
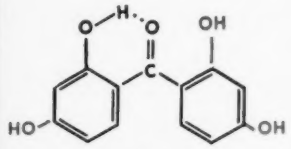
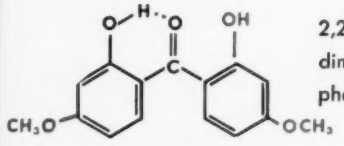
Ultimate in private brand labeling of aerosols was attained last month when Mark Biddison, former president of General Chemical Division, Allied Chemical & Dye Corp., New York, retired from the company. Shown below are two of a number of aerosols specially prepared by his former associates for use in his new home and aboard his new boat: "Bid's Bug Bomb—Guaranteed to control all pests that put the big bite on you (this includes relatives and New York visitors)", and pressure operated boat horn, "Bid's Boat Blaster". (P.S. Naturally both products are powered by "Genetron" propellants which General Chemical has been producing since their launching commercially during Mr. Biddison's regime.) For details on Mr. Biddison's retirement see story on Page 129.

BID'S
BUG BOMB
Special Sarasota Formula
Guaranteed to control all pests that put the big bite on you. (This includes relatives and New York visitors)
BID'S
BOAT
BLASTER

UVINUL®

nullifies ultraviolet light

Antara offers Uvinul Ultraviolet Light Stabilizers with a wide range of solubilities and absorption characteristics. Choice of the correct Uvinul depends upon the intended use.

TRADE NAME	STRUCTURE	NAME
UVINUL 400		2,4-Dihydroxy Benzophenone
UVINUL M-40		2-Hydroxy-4-methoxy-benzophenone
UVINUL D-50		2,2′, 4,4′-Tetrahydroxy Benzophenone
UVINUL D-49		2,2′-Dihydroxy-4,4′-dimethoxy-benzophenone
UVINUL 490		2,2′-Dihydroxy-4,4′-dimethoxy-benzophenone, and a mixture of other tetra-substituted benzophenones.

USES

STABILIZES

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"It pays to see VICTOR" contest

WIN A 15-DAY HAWAIIAN VACATION FOR TWO

35 other valuable prizes Plus . . . bonus prizes!

first prize

A trip to the spot you've always dreamed about. Fabulous, fabled, romantic Hawaii—the pearl of the Pacific. Home of the hula, Waikiki Beach, beautiful Diamond Head, Pearl Harbor—a land of enchantment. You can have 15 days in the paradise of the Pacific—for *two*—if you win first prize in the "It *Pays* To See Victor" Contest. Fly via United Airlines DC-7, Red Carpet service. All traveling and living expenses paid. You select the time you want to go (during 1958). It's fun! It's easy! Read the rules inside . . . enter the contest . . . and you may be the lucky winner who leaves the mainland (and worries) behind for 15 wonderful, carefree days. There's a five-day island cruise included, too!

15 second prizes

Admiral portable TV sets with 17-inch screens will be awarded to the 15-second-place winners. Here's an easy way to get that second TV set.

20 third prizes

Admiral transistor radios will be given to the 20 third-place winners. These popular, electronic marvels bring entertainment wherever you go.

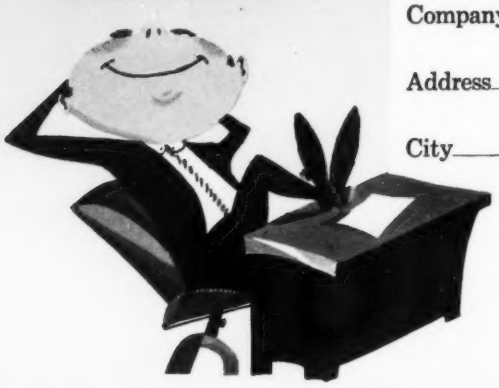
See inside for contest puzzle, complete rules, and details about bonus prizes!

it's fun! it's easy!

HERE'S ALL YOU DO . . .

Study the clues carefully . . . then fill in the missing letters. Extra clues to each of the names or abbreviations of Victor chemicals in the puzzle are given in the story on the back page. One word of caution . . .a few of the *regular* word choices *are* tricky; so be careful. Winning entries will be selected on the basis of the greatest number of correct words. The correct solution to the puzzle is locked in the vaults of the First National Bank, Lake Forest, Illinois.

1 G	■	2	■	3 A	4	5	■	6	7	8	9	■	10	H	11	12	M	A	■
13 A		R	■	■	14		15	■	16				17		■	18		■	■	19
	■	20 I	21	22				23							24			25 R	■	A
26 B	27	E				■	28				■	29						E	30	S
31 L		S				32 S	■	■	P	■	33	■	34			■	■	35 P		T
36 E		■	37			W	■	■	38 H	39 A	L		■	40		41 S	T	E		■
S	■	42 S				E	■	43			O	■	44 P			O	■		■	45
■	■		■	■	46	A	V			■	47 U		E	■	■		■	48 T	49	O
■	■	O	■	50	■		■	51		O	T	■		■	52 S	E	53	■	54	A
55 F		R	56 C	E	■	57 S		A	C	K	■	58	T	■		■	59	E		R
	■	60 T		A	M	■	■	L	■	■	61	N	■	62 G	A		E	■	Q	D
R	■	■	L	L	■	A	M	■	63 W		I	T	I	N	G	■	64	O		E
65 E	A	R		■	66 B	L	A		K	■	D	■	■	U	■	67	E	W	E	R



OFFICIAL ENTRY BLANK

"It Pays To See Victor" Contest, Box 7908, Chicago 77, Illinois

Name_____

Title_____

Company_____

Address_____

City_____ Zone____ State_____

Bonuses! Bonuses!

If you submit your entry on the special contest entry blank obtainable at Victor's booth at the 26th Exposition of Chemical Industries . . . and your entry is a winner . . . you will receive one of the bonus prizes.

The Hawaiian trip bonus will be a matching set of canvas airplane luggage. Portable TV winners will receive a handsome table for their set. Transistor radio winners will receive a genuine leather carrying case.

CLUES ACROSS

3. Perform.
6. As alike as two —— in a pod.
10. Girl's name.
13. What we breathe.
14. Torrid.
16. Player of a certain stringed instrument.
18. Prefix of a Victor calcium phosphate used in dentifrices.
20. Good advice for buyers of chemicals (5 words).
26. Maker of beer.
28. To mail, as a letter.
29. Those getting off airliner.
31. Amounts bet unsuccessfully.
34. Eggs of fishes.
35. A favorite.
36. Boy's nickname.
37. Dish of boiled meat and vegetables.
38. —— way may well be where you might arrange to meet someone.
40. Endured.
42. Gaze or look fixedly.
43. Prefix of a Victor ammonium phosphate used for flameproofing.
44. Prefix of a Victor complex phosphate used in prepared cake mixes.
46. To taste or smell with pleasure.
47. Shoshonean Indian formerly ranging in Utah, Colorado and New Mexico.
48. Also.
51. Tumultuous disturbance of the public peace.
52. Group of things, as dishes.
54. Short for "father."
55. Not apt to succeed if somewhat weak.
57. To have a tumble-down —— on his place won't please efficient farmer.
58. Preposition.
59. Perceive by the ear.
60. Group pulling together.
61. Indefinite article.
62. In football, the worse this is, the less enthusiasm will be shown.
63. One is grateful to find paper available in —— room.
64. Man who devotes life to sensual pleasure.
65. Nobleman ranking below a marquis.
66. Something presumably is wrong if lovers exchange —— looks.
67. The —— the cars on the highways, the lower the traffic toll should be.

CLUES DOWN

1. You would scarcely say teacher who —— is setting good example for pupils.
2. If he —— long enough, spoiled brat generally gets his own way.
4. Military horses trained to attack.
5. Plaything.
6. An acid used in a solution to bright-dip aluminum.
7. Point of the compass.
8. You —— smart to see Victor.
9. Hastened.
10. Prefix of a Victor complex phosphate used in synthetic detergents.
11. Abbr. of a Victor chelating agent to control certain ions in water.
12. King of beasts.
15. Abbr. of a Victor phosphate used in washing and cleaning compounds.
17. Always.
19. New girl may help fellow who's been jilted to forget the ——.
21. Dickens wrote "Oliver ——."
22. Prefix of a Victor sulfide used in the manufacture of oil additives.
23. Preposition.
24. Lucid.
25. Gossip is just the kind of thing people may ——.
27. Spare the —— and spoil the child.
30. Primary color.
32. In hot weather, it's hardly surprising if boiler room worker —— a little at his work.
33. You'd be pained, of course, if someone should —— you.
39. Indefinite article.
41. Statue of Liberty is a rare sight for —— eyes when liner arrives in New York.
42. Fellow who's —— may offer to toss coin for the drinks.
43. Point of a fable.
44. In one's youth, one might well have been ——.
45. It's not surprising that his rooms are untidy.
49. Not transparent.
50. Schoolboys are naturally expected to eat a good —— at noon.
52. Male deer.
53. In that place.
55. Hearing someone shout this might make nervous person jump.
56. Prisoner's quarters.
58. Insect.
61. Help.

CONTEST RULES

1. This is a contest of skill. Study the clue definitions carefully, before writing in your answers. There is only one correct solution. If no correct solution is received, those most nearly correct, based on the number of correct words, will be selected as winners. Judges have been appointed by Victor Chemical Works, and they will consider all entries and determine the prize winners. By entering, entrants agree that the decision of the judges shall be final and binding. No entries will be returned. All entries become the property of Victor Chemical Works.

2. After you have filled in your answers neatly and clearly, fill out the official entry blank and mail the puzzle and the entry blank to: "It Pays To See Victor" Contest, Post Office Box 7908, Chicago 77, Illinois.

3. All entries of solutions to the puzzle must be post marked before mid-night, December 20, 1957, and received before January 3, 1958.

4. Entries shall be limited to persons over 21 years of age, and who are residents of the continental United States, except employees of Victor Chemical Works, its advertising agency, and members of their families. Only one entry per person will be accepted.

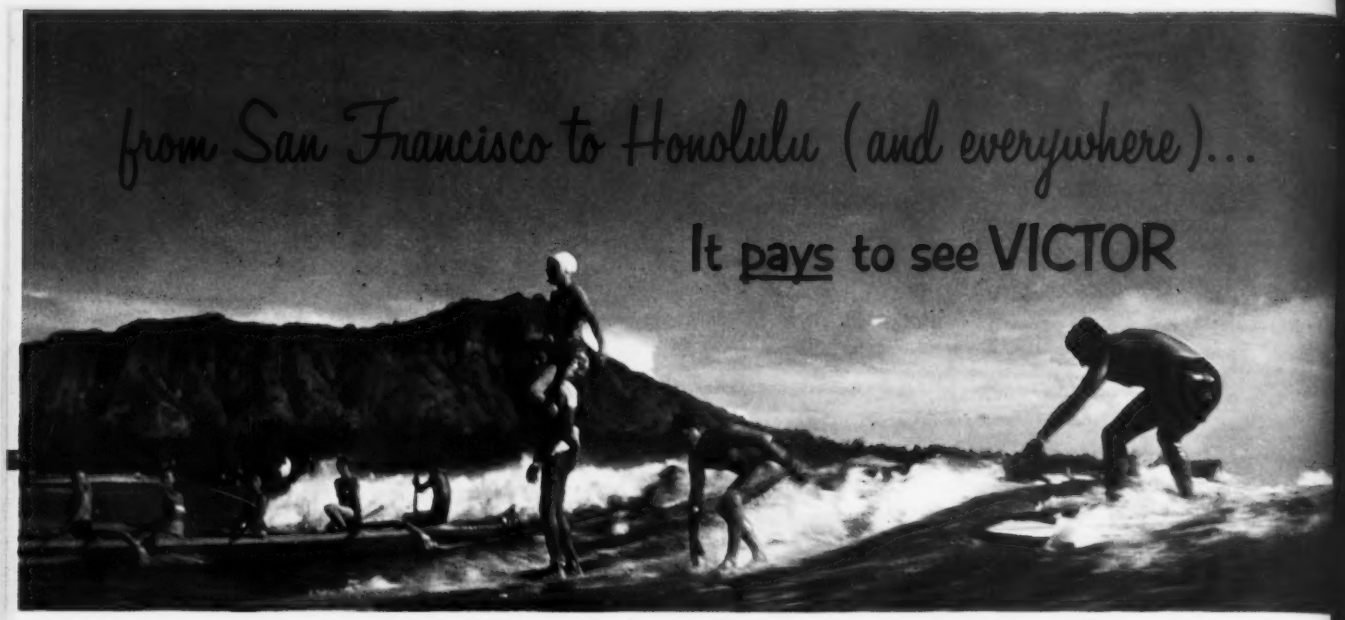
5. In the event more than one contestant submits a perfect solution to the puzzle, or in the event that entries receive an identical rating, these entrants will be asked to complete the statement: "In the ----- industry, it pays to see Victor because . . . " in twenty-five words or less. Such statements will be judged on the basis of originality and aptness, and duplicate prizes will be awarded in case of ties.

6. There are 36 prizes, as shown elsewhere in this announcement.

7. Any winner, submitting the puzzle on the special entry blank, obtainable at the booth of Victor Chemical Works, at the 26th Exposition of Chemical Industries, will be eligible to one of the bonus prizes in accordance with details outlined in this announcement.

8. Contest is subject to all Federal, state, and local regulations.

9. Winners will be notified by mail about March 1, 1958. After the winners have been announced, the correct solution to the puzzle will be mailed to anyone sending a stamped, self-addressed envelope. Requests should be sent to: Advertising Department, Victor Chemical Works, 155 North Wacker Drive, Chicago 6, Illinois.



Two lucky people will board a beautiful, United Airlines Mainliner after winning first prize in the "It Pays To See Victor" contest. They'll be traveling in style, comfort, safety, and good health, thanks to many Victor chemicals. Imagine, if you will, how many times they will use, or come in contact with Victor chemicals on their flight to Hawaii. For instance, before they take off, the ground crew refuels and checks the oil in the plane. Flights are faster because today's engines are lubricated with oils containing additives made with phosphorus pentasulfide. Now, let's look at some of the bright ideas aboard. Aluminum sections, trim, and parts (to save weight), are in evidence almost everywhere you look. The shiny finish is the result of being bright dipped in a solution containing phosphoric acid. Surprised? Have a seat, and look at the colorful window curtain. The fabric has probably been made flame resistant by dipping in a solution containing mono-ammonium phosphate. In addition, many fabrics, even clothing of the passengers and crew, were dyed with the aid of Questex (EDTA—ethylenediamine tetra-acetic acid). Hungry? When the stewardess brings the meal the dessert could well be a piece of cake . . . made light and tender because the phosphate leavening agent used is sodium acid pyrophosphate. No washing dishes up here, of course, but when they are washed in modern, commercial dish-washing equipment, they will be spotless and sanitary if the washing compounds contain chlorinated TSP (trisodium phosphate). Lean back and relax. The pillow case and other individual articles used for personal comfort during the flight have been laundered fresh and clean with a detergent containing sodium tripolyphosphate. Getting anxious? Almost before you can say . . . "It pays to see Victor", the hostess will be saying, "Aloha"! As you deplane, she smiles, and her beautiful white teeth are evidence that the dentifrice she uses contains dicalcium phosphate. The list of uses of Victor chemicals is endless . . . and when the commercial "jets" begin flying, you can bet that Victor phosphates, formates, and oxalates will be a part of them, too!

VICTOR CHEMICAL WORKS
155 North Wacker Drive, Chicago 6, Illinois

VICTOR
Dependable Name in
Chemicals
for 60 Years

Detergents . . . Cleansers . . . Soaps . . .

Bill Reed, head of P&G's Port Ivory perfume department, is supervisor of a staff of "educated noses" that maintains control over the perfuming of the company's soaps and detergents. See story beginning on page 44.

- Aerosols
- Detergents
- Dishwashing compounds
- Floor scrubs
- Glycerine
- Hand cleaners
- Laundry soaps
- Liquid soaps
- Metal cleaners
- Potash soaps
- Scouring cleansers
- Shampoos
- Shave products
- Soap powders
- Starch
- Steam cleaners
- Medicinal soaps
- Textile detergents
- Toiletries
- Toilet soaps and other detergent and soap products

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Data Sheets

they're yours for the asking

A separate product bulletin is now available for each BLOCKSON chemical listed below. Bulletins provide required data on formulas, properties, applications, grades, containers, etc. All essential information is concisely presented for ready reference.

MARK AND MAIL THIS LIST

Check the list at right for data sheets you require. Clip to your company letterhead and mail today. Samples, prices, or contract proposal on request.

- ☐ Sodium Tripoly Phosphate
- ☐ Tetrasodium Pyrophosphate
- ☐ Trisodium Phosphate Crystalline • Monohydrate
- ☐ Trisodium Phosphate Chlorinated
- ☐ Disodium Phosphate Crystalline • Anhydrous
- ☐ Monosodium Phosphate
- ☐ Monosodium Phosphate Anhydrous • Monohydrate
- ☐ Sodium Polyphos*
- ☐ Sodium Acid Pyrophosphate
- ☐ Tetrapotassium Pyrophosphate
- ☐ Sodium Fluoride
- ☐ Sodium Silicofluoride
- ☐ Hygrade Fertilizer
- ☐ C-29 Sequestering Agent
- ☐ Teox 120 (Nonionic Surfactant)
- ☐ Hydrofluoric Acid
- ☐ Sulfuric Acid

*Sodium Hexametaphosphate - Sodium Tetraphosphate

BLOCKSON CHEMICAL COMPANY • Joliet, Ill.

Division of Olin Mathieson Chemical Corporation

WAREHOUSE STOCKS AT ALL BLOCKSON DISTRIBUTORS

BLOCKSON

Three, high-speed filling lines at new 60,000 square foot plant turn out over 42,000,000 bottles of "Lestoil."

New Home for Adell's "Lestoil"

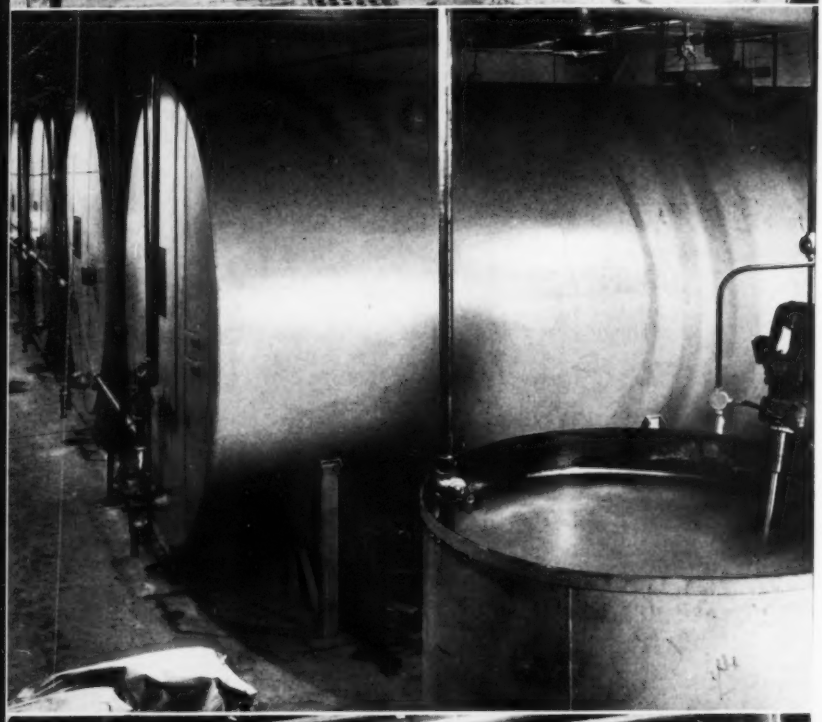
WHEN Adell Chemical Co. of Holyoke, Mass., held open house Oct. 7-10 to mark completion of its new plant for the manufacture of fast-selling "Lestoil," all -purpose liquid detergent, the company wrote another chapter in a most unusual success story.

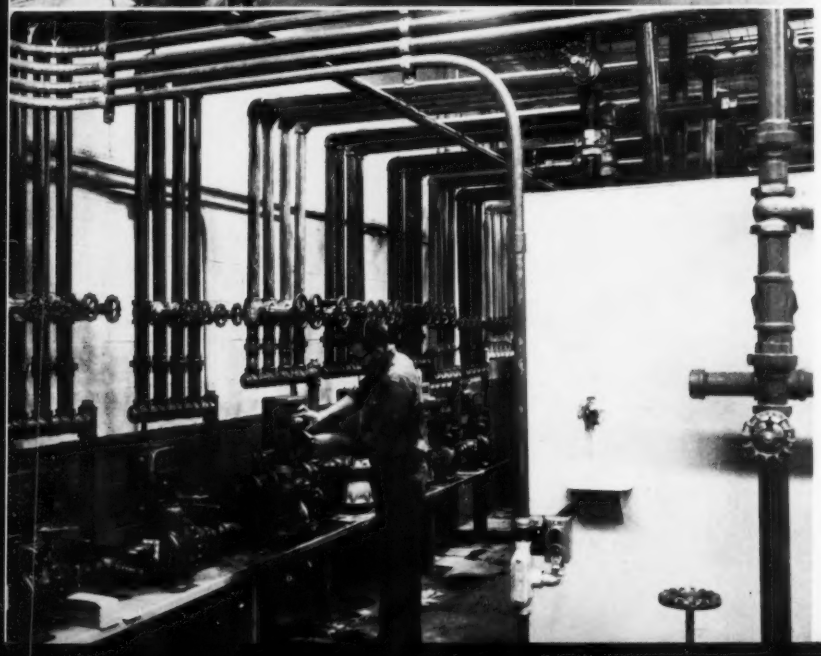
The Adell or, if you prefer, "Lestoil" story, since many more people know the product than the company name, is full of surprises. In fact, one might even say there is a touch of fantasy to the history of the product. Thus, to anyone who knows Jacob L. Barowsky, founder and president of Adell, he is completely believable when he looks around the new 60,000 square foot plant and says, "I never, even in my wildest and fondest dreams, could foresee anything that would closely resemble this."

After all, Mr. Barowsky can remember vividly back in 1935 when he and his one employe filled,

Jacob L. Barowsky, founder and president of Adell Chemical Co.

Drawing of new Adell plant in industrial park section of Springdale, Holyoke, Mass. Newly completed plant must be expanded to meet increased demands for "Lestoil."





Flowsheet in pictures of new Adell Chemical plant in Holyoke, Mass., for production of "Lestoil." Top photo shows two of 12 to 14 tank cars of pine oil plant receives each month. Oil is pumped from cars on Adell's siding into battery of six, 20,000 gallon liquid raw material storage tanks (center photo). Meters measure flow of liquid raw material through color coded piping system to mixing tanks shown in bottom photograph.

labeled and capped—all by hand—bottles of a cleaner bearing the name, "Lavol", which was changed in the following year to "Lestoil". Today, Mr. Barowsky's head must whirl at the product's production rate of three and one-half million bottles a month, or 42 million a year. These figures do not include "Lestoil" sold in 55-gallon drums and half-gallon and one-gallon cans. In addition the product is being test marketed in the form of a waterless hand cleaner.

Contrast these figures with the old days, when, as Mr. Barowsky recalls, "If I sold a couple of hundred dollars worth of the stuff in a year it was a lot."

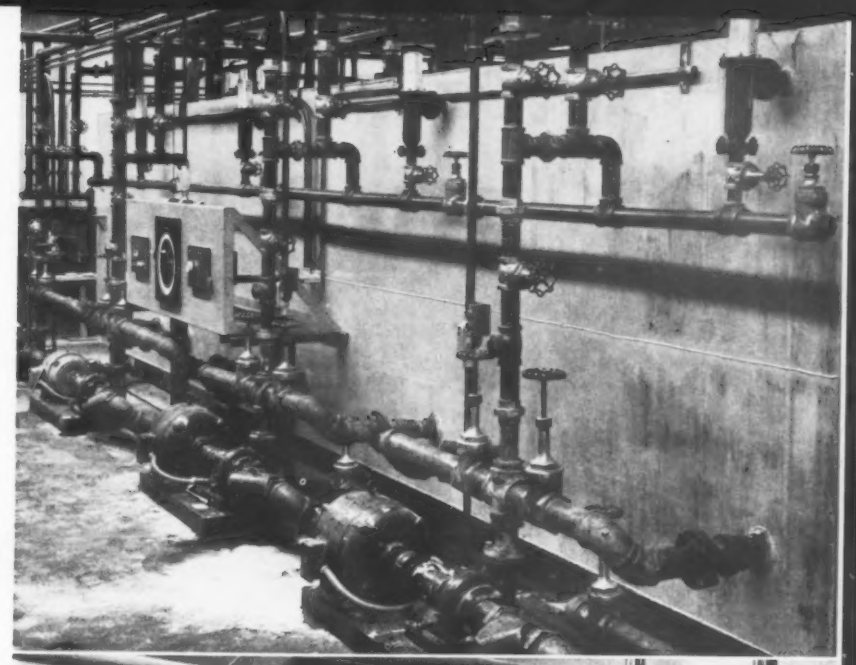
Nor is growth alone what is unusual about this New England concern and its product. Remarkable is the sales momentum picked up 18 years after the cleaner was given its present name. From 1954, when the first "Lestoil" television commercial was flashed on screens of viewers of station WHYN-TV, Holyoke, until the present, sales of the product have skyrocketed. Utilizing mostly off-beat TV commercial spots, Adell has maintained saturation schedules in its sales areas. Adell's 1957 advertising expenditure, mostly for TV, will be approximately $4,000,000. This is a sizable outlay for a company marketing only one product and not on a national basis.

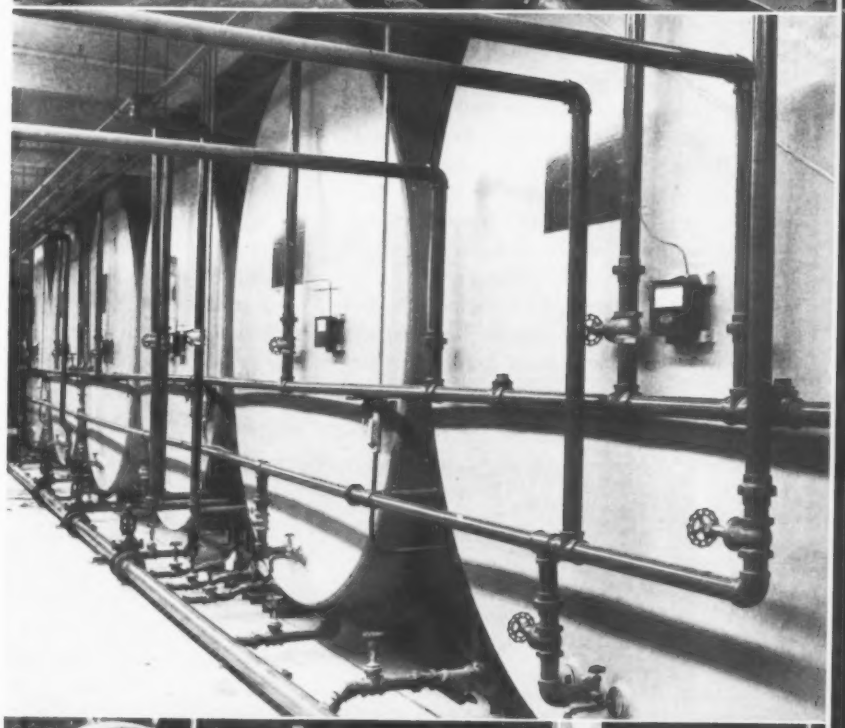
Currently, "Lestoil" is distributed in: Massachusetts, Connecticut, Rhode Island, New Hampshire, Vermont, Maine, Maryland, Kentucky, New York, New Jersey, Pennsylvania, Ohio, West Virginia, Michigan and Wisconsin, D. C. In these areas Adell carries on saturation advertising through the TV medium on a year round basis over 100 stations representing 1,834 spot commercials per week. This satura-

tion advertising, an Adell trade mark, continues to be the policy in all areas of distribution. In fact, prior to introducing "Lestoil" in Detroit a concentrated barrage of TV commercials was employed. There, incidentally, the product meets its first nose-to-nose competition from a similar type cleaner, "Pine-Sol," made by Milner Products Co. of Jackson, Miss.

Adell's founder and president, Jacob L. ("Jack") Barowsky, received his early education in Holyoke public schools and was graduated from Harvard College in 1915 with a B.A. degree. His early business experience included ventures in paper jobbing, metal goods manufacturing and real estate. In 1927, he joined his brothers in the operation of General Cleaners and Dyers in Holyoke. It was here that he observed the various steps involved in the dry cleaning process. The necessity of using two types of solvents or cleaners for water soluble or protein spots gave Mr. Barowsky the idea of an all-purpose cleaner.

Although serious illness forced his withdrawal from the cleaning business, Mr. Barowsky continued, during his long period of hospitalization and recuperation, pondering his idea of perfecting an efficient, all-purpose laundering and cleaning agent. Working at this time with the assistance of chemist John Tulenko, a trial and error period of much experimentation and testing finally lead to a product miscible in both water and oil. The first batches of this solution—mixed in a baby's bathtub—found long-hoped-for acceptance by commercial launderies. While this forerunner of "Lestoil" was finding its niche as an industrial cleaner, Mr. Barowsky persisted with his original dream—that of marketing a product that would produce the





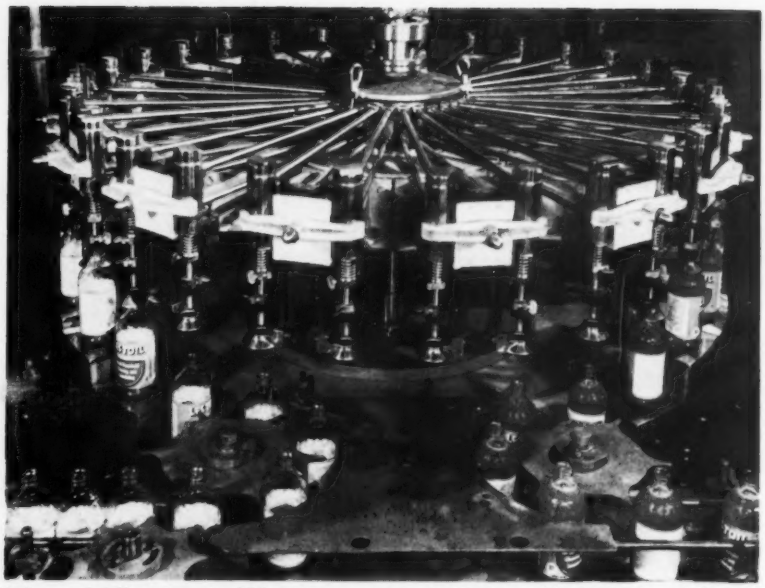
Three, 5,000 gallon "jet propelled" mixing tanks of Adell's own design produce "Lestoil" (top photo), which is then pumped into one of six 15,000 gallon storage tanks (center photo). When needed at filling stations, such as drum filling, as shown in bottom photo, or on any of the three automatic bottle filling lines, "Lestoil" is available from finished product storage tanks.

same results for all household cleaning and laundering. The initial step in that direction was the formulation of eight different stain removing agents for specific types of soil by packaging them in one kit. Merchandising problems proved to be insurmountable. However, one of the agents in this kit, called "Soap Solution" for want of a better name, survived and came to be known as "Lavol". In 1936 the more apt name, "Lestoil", came into being and became a registered trade mark.

In addition to its household and commercial laundry uses, "Lestoil" is used extensively by paper mills for removing such difficult soils as ink, wax, oil, grease, asphalt and adhesives from paper makers' raw stock such as newsprint, old magazines and rags. Textile mills use "Lestoil" for scouring and removal of imbedded graphite, grease, oil and dirt from the fabric required for subsequent uniform bleaching and dyeing.

Retail distribution of "Lestoil" was limited at first to New England and then reduced to western Massachusetts - Connecticut area. With the end of World War II and the freer availability of soap, "Lestoil" underwent a sales setback in all areas, because at that time the product was regarded as a soap substitute. Adding to the product's difficulties was the reluctance of brokers to handle an unknown product. This forced Adell to initiate distribution with its own sales force. Then, from 1946 through 1953, various merchandising policies were examined and tried with only moderate success. In 1954

(*Turn to Page* 89)



High speed, fully-automatic, 30 head Pneumatic Scale filling unit fills 250 bottles of "Lestoil" a minute. There are three such units of new Adell plant.

Filled, capped, labeled bottles of "Lestoil" in pint and quart sizes at the end of the filling line are lowered into shipping cartons by Standard-Knapp case fillers. Dr. Edwin I. Stoltz, Adell's director of research and development in his modern laboratory.

Soap Association announces its new book on

Building Maintenance and Sanitation

Cleaning and maintenance materials and latest methods of application covered in booklet, "Building and Equipment Sanitation Maintenance"

PUBLICATION by the Association of American Soap & Glycerine Producers of a new booklet, *Building and Equipment Sanitation Maintenance*, was announced at a press conference and panel discussion Oct. 10, at the Hotel Biltmore, New York. Written by J. Lloyd Barron, director of sanitation of National Biscuit Co., New York, and Albert J. Burner, supervisor of cleaning standards, Port of New York Authority, the booklet is the second publication of the Soap Association. In 1955, "The Prevention of Occupational Skin Diseases" by Dr. Louis Schwartz, was published by the association. Both books were prepared under the sponsorship of the Industrial Division of the Soap Association as a service to industry and to aid in the promotion of cleanliness and maintenance products.

The new booklet, the full title of which is "Building and Equipment Sanitation Maintenance, Principles and Practices," is being distributed by Soap Association member companies and is available to non-member companies and individuals. The cost to member companies is 53 cents each without a company imprint on the back cover; 55 cents each with an imprint. To all others the cost of the booklet is 75 cents each. Copies are obtainable from the Association of American Soap & Glycerine Producers, Inc., 295 Madison Ave., New York 17, N. Y.

The 64-page booklet, which is fully illustrated with photographs of actual cleaning and maintenance operations, also carries charts and tables of costs, maintenance schedules and rating forms. The booklet was introduced to coincide with the first meeting of the new Institute of Sanitation Management, which took place during the Second Sanitation Maintenance Show and Conference in Chicago, Oct. 14-16. Mr. Burner is president of the Institute of Sanitation Management.

The eight chapters which make up the booklet cover such subjects as "Cleaning as a Part of Industrial Sanitation and Building Maintenance"; "The Nature of the Cleaning Problem"; "Types of Cleaning Materials"; "Fitting the Cleaner to the Need"; "Selection of Cleaners"; "Organizing the Cleaning Program"; "Determination of Cleaning Costs," and "Modern Industrial Sanitation Programs."

Chapter 3, "Types of Cleaning Materials," covers the principal type of cleaning agents being used in maintenance today. The chapter concludes with three charts listing recommended usage of materials for hard surfaces, resilient surfaces

Cover of new 64-page booklet, "Building and Equipment Sanitation Maintenance," which was published by Soap Association, last month, is illustrated with drawings of typical industrial and commercial building maintenance and cleaning operations.

and sealed wood, and miscellaneous surfaces. Types of cleaners described briefly and for which applications are given include "balanced" cleaning agents, soaps, synthetic detergents, alkaline, abrasive, solvent, acid and specialized cleaners.

"The cleaner of today," say the authors, "is not generally composed of 100 per cent soap, synthetic, alkaline, abrasive, solvent or acid material. It is, rather, a combination of two, or more, of the above materials, compounded to include the wetting, penetrating, suspending, water conditioning, and rinsing abilities of each. For instance, the 'scrub soap' of yesterday has become the 'Liquid Utility Cleaner,' or 'Floor Cleaner' of today. It contains, besides soap, small percentages of carefully added alkaline materials to impart special detergency or water conditioning properties and, in most instances, small percentages of synthetics for their wetting abilities. Thus, when we speak of most proprietary cleaning agents as a soap, synthetic, alkaline cleaner, etc., we are, in truth, referring to a 'balanced' cleaner, which is *primarily* composed of one or another of these basic types of detergents."

Various procedures the industrial or institutional consumer can follow in the selection and purchase of cleaning chemicals are outlined in Chapter 5, "Selection of Cleaners." The authors recommend all of the following procedures for a successful program: written laboratory specifications, comparative performance tests, reference research and the experience of others.

With the U. S. paying over $4,000,000,000 in wages to a cleaning work force of 2,000,000, cleaning can no longer be treated casually, the authors say. "Cleaning of the work place is now a complex and special job, one which industry can no longer afford to do casually or haphazardly," they write in Chapter I. "With over 60,000,000 persons employed in the United States, and . . . (wage rates) mounting steadily, the efficient maintenance of the work place takes on increasing importance and warrants critical consideration of the organization, methods and materials involved in such cleaning maintenance."

Co-authors Barron (left) and Burner (right) with Roy Peet, manager of the Association of American Soap & Glycerine Producers, examine first copy of new booklet, "Building and Equipment Sanitation Maintenance—Principles and Practices," which was published last month by the Soap Association. Mr. Barron is director of sanitation, National Biscuit Co., and Mr. Burner is Supervisor of Cleaning Standards of the Port of New York Authority.

"Modern business management," say Messrs. Burner and Barron, "is not only concerned with the costs of sanitation maintenance, but with the economies in production, the support of quality, and the promotion of employee morale, which result from clean and orderly work places. Rising capital investments in better plants, machines and personnel facilities not only warrant but require maintenance of similar calibre. Just as a clean and attractive home is evidence of a family's pride, thrift and energy, so do clean factories, stores, office buildings, schools and institutions reflect competence of management; furthermore, a sense of social responsibility is thereby exemplified which is an essential element in our rising standards for living and working."

The book views present-day sanitation and maintenance operations as highly organized, self-contained functions performed by trained personnel responsible directly to top management—whether in an industrial plant, school, hospital, office building, or other organization.

Participating in the panel discussion on the importance of sanitation to top management and to announce publication of the new booklet were: Messrs. Barron and Burner, Fred R. Burnell, American Telephone & Telegraph Co.; James V. Cawley, Airkem, Inc., J. S. Fassett, American Hotel Association, Edward Hupert, Post Office Department and Charles Vincent, St. Luke's Hospital, New York.

Roy W. Peet, secretary and manager of the Association of American Soap & Glycerine Producers, Inc., New York, was moderator.

Burner—A Tribute

MR. BURNER, the first speaker, said he "considered it a tribute that the Soap Association made it possible to bring the problem of cleaning to press." He pointed out that the book is confined to cleaning surfaces and industrial equipment—which comprises 75 per cent of all cleaning and maintenance. The big problem in maintenance today is that of rising costs of an investment on which there is no return. Lack of prestige is another problem in the field of maintenance and sanitation, Mr. Burner

said. This may be due partly to the fact that few people realize the scope of the field in which more than 2,000,000 are employed and receive wages and salaries of $4,000,000,000 annually. Materials and equipment costs were put at another $400,000,000 by Mr. Burner.

Mr. Burner then introduced his co-author, J. Lloyd Barron, first national president of the Institute of Sanitation Management, formation of which was ratified by members of the Association of Food Industry Sanitarians and the Industrial Sanitation Management Association. A third organization, National Association of Bakery Sanitarians, is expected to consolidate with the Institute of Sanitation Management at a later date. Formal ratification of the consolidation of the Food Sanitarians and the ISMA group took place during the Sanitation Maintenance Show and Conference in Chicago, Oct. 14-16.

Barron—Primary Reason

MR. BARRON said the primary reason for the booklet is to have something to present to top management as an aid to its understanding of industrial sanitation. Although sanitation problems have become almost as complex as industrial machinery, they have not received the same degree of care and attention from management as, for example, the production or cost accounting end, Mr. Barron stated. Potential savings of dollars, labor and better jobs will result from a clearer understanding of industrial sanitation by top management, according to Mr. Barron. He concluded with a quotation from the booklet that a new level and new quality of personnel is emerging in the field of industrial sanitation.

Burnell—$100 Million

MR. BURNELL said that his company spends over $100 million a year to take care of its 14,000 buildings having 120 million square feet of floor space. Although this expenditure produces no actual cash revenue, good housekeeping through greater efficiency cuts costs and thereby increases dividends. The new booklet, which Mr. Burnell said contained information that he was not aware existed before, would be put to good use. In fact, he said, at a conference of building superintendents to be held by his firm the following week for the training of supervisory personnel, the booklet would be studied and recommended for use by those attending.

Fassett—Near and . . .

CLEANING and maintenance is a subject "near and dear to the hearts" of hotelmen, but it is one they "don't think too kindly of," J. S. Fassett declared. His association is trying to help its members with their cleaning and maintenance problems because of the previous lack of material of the type contained in the booklet, "Building and Equipment Sanitation Maintenance." The magnitude and complexity of the problem of hotel maintenance and cleaning was cited by Mr. Fassett in the following figures on the hotel industry in the U.S. "Our hotels (14,000) have a value of $6,000,000,000, provide 1,400,000 rooms to handle two million guests nightly. The hotel industry has the biggest housekeeping job in the world," according to Mr. Fassett. 652,500,000 square feet of hotel space, nearly 15,000 acres have to be cleaned daily. In addition to cleaning and maintaining all types of rooms and public areas, including bars, restaurants, corridors, ball rooms, private dining rooms, kitchens and steam plants, hotels are equipped with every type of flooring and floor covering. The most difficult problem, he said, was the cleaning of several thousand acres of carpeting. All of which adds greatly to the complexity of the cleaning job. For this reason, anything that can contribute to to cleaning and maintenance know-how can be of great benefit in our industry, Mr. Fassett concluded.

Hupert—Attention

MR. HUPERT asserted that anything Lloyd Barron or Al Burner wrote or said would command attention or attendance. If this booklet had been written two years ago the Post Office Department's program of maintenance would be one year farther along. Singling out Chapter 6, "Organizing the Cleaning Force," Mr. Hupert said that if the working force is organized properly building

(*Turn to Page* 101)

Panel of experts who discussed new booklet, "Building and Equipment Sanitation Maintenance—Principles and Practices" at press conference Oct. 10. Participating were, l. to r.: James V. Cawley, Airkem, Inc.; Fred R. Burnell, American Telephone & Telegraph Co.; J. S. Fassett, American Hotel Assn.; Albert J. Burner, Port of New York Authority; Roy Peet, Soap Association; J. Lloyd Barron, National Biscuit Co., Edward Hupert, U. S. Post Office Department and Charles Vincent, St. Luke's Hospital, New York.

Aerial view of 50-year-old Port Ivory, second largest plant of Procter & Gamble Co., outside of Cincinnati, and still "unfinished." Plant produces detergents, soaps, shortenings on northwestern shore of Staten Island, across the bay from New York City.

Port Ivory is 50 Years Old

THE 50th "birthday" of the Port Ivory plant of Procter & Gamble Co. on Staten Island, N. Y., was celebrated October 15 with a luncheon for all employees under a huge circus tent on the plant grounds. Richard Redwood Deupree, P&G board chairman, cut a king-size birthday cake, which was topped by the company's man-in-the-moon trade mark. Afterwards he addressed the employees' luncheon.

Other highlights of the observance of the beginning of operations at the 50-year-old plant was a reception and dinner on Staten Island for some 250 civic and business leaders. Mr. Deupree spoke at the dinner, as did Albert V. Maniscalco, president of the Borough of Richmond. October 15 was proclaimed by Mr. Maniscalco as "Procter & Gamble Day on Staten Island."

Two special presentations to the company included the awarding of a "certificate of merit" by the New York City Department of Commerce and Public Events and a plaque of appreciation given by the Staten Island Chamber of Commerce. The certificate of merit is in recognition of the company's 50-year contribution to the City's industrial stability. The Chamber of Commerce plaque was given in appreciation of P&G's 50 years of "good industrial citizenship on the Island."

Port Ivory, the largest branch plant of a world-wide company, began operations in October, 1907, in the then-isolated area of Mariners Harbor on Staten Island's northwestern shore. Employing 400 persons then, Port Ivory was P&G's first manufacturing unit in the East and the second step in building today's world-wide of plants.

Port Ivory today has more than 1,400 employees and an annual payroll in excess of $10,000,000, according to G. L. Andrews, division manufacturing superintendent. Mr. Andrews also pointed out that the plant started with 11 buildings on 77 acres and has grown to 64 separate buildings on 135 acres, an area roughly 10 times the size of Rockefeller Center.

One of New York's largest manufacturing operations, Port Ivory, for which a section of Staten Island is named, is not well known to most New Yorkers. Accustomed to large undertakings they are generally unaware of the factory's existence, much less know that the plant has been a major industrial landmark in New York for the past half century. Actually, Procter & Gamble was the first major national manufacturer to build a plant on Staten Island.

The site selected for the plant – on Mariners Harbor on the northwestern shore of Staten Island

– raised the eyebrows of some of the more skeptical businessmen of 1907. Although providing direct railroad connection and dock facilities for both barges and ocean-going ships, Mariners Harbor was miles from "downtown" Staten Island and its other industries.

Later, as growth came to both Staten Island and Procter & Gamble, the wisdom of the choice became apparent. Room for expansion was readily available for the plant which is "50 years old but not finished yet."

Meanwhile, improvements in streets, roads and means of transportation made the plant increasingly convenient. And today, in the age of the automobile, Port Ivory is more accessible than other areas which have long since been hemmed in by industrial and residential growth on the Island.

Port Ivory marked a turning point in Procter & Gamble's growth; national demand had risen to the point where it required the building of an eastern plant. In fact, Port Ivory was only the second plant outside P&G's home city of Cincinnati. The other, in Kansas City, Kans., had been put into operation only two years earlier. In later years, continued growth of the eastern metropolitan areas created the need for additional plants (one in Baltimore, and the other in Quincy, near Boston, Mass.), but Port Ivory remains the largest of Procter & Gamble's branch plants.

Over the years, employment at Port Ivory has grown steadily, paced by continuing population growth and public demand for P&G's increasing number of products. From an original 400 people in 1907, employees now total around 1,425.

Wages at Port Ivory match or exceed those paid by other leading metropolitan New York employers for similar work. Employees also participate in P&G's 70-year-old profit sharing plan and, since 1923, those with two or more years of continuous service have been protected against seasonal slumps, layoffs and depressions by the company's guaranteed employment plan.

One result is that about one out of every three employees has at least one relative working at Port Ivory. Another has been unusually long service records; more than 50 per cent of the employees, in fact, have been with P&G 20 years or longer, despite the fact that most of the plant's employment growth has come in post-war years.

A good measure of Port Ivory's size and its importance to P&G's operations is the market area it serves. Its soaps and detergents are on retailers' shelves throughout lower New England, New York, New Jersey, Pennsylvania and parts of Maryland, including such metropolitan areas as New York, Philadelphia and Pittsburgh. It produces all P&G retail shortening sold on the Atlantic seaboard from Maine to Florida, and products are shipped as far inland as eastern Kentucky.

Bulk soaps and synthetic detergents (used by laundries, hotels, institutions) and bulk shortenings (used by restaurants, bakeries, etc.) are shipped to much the same areas.

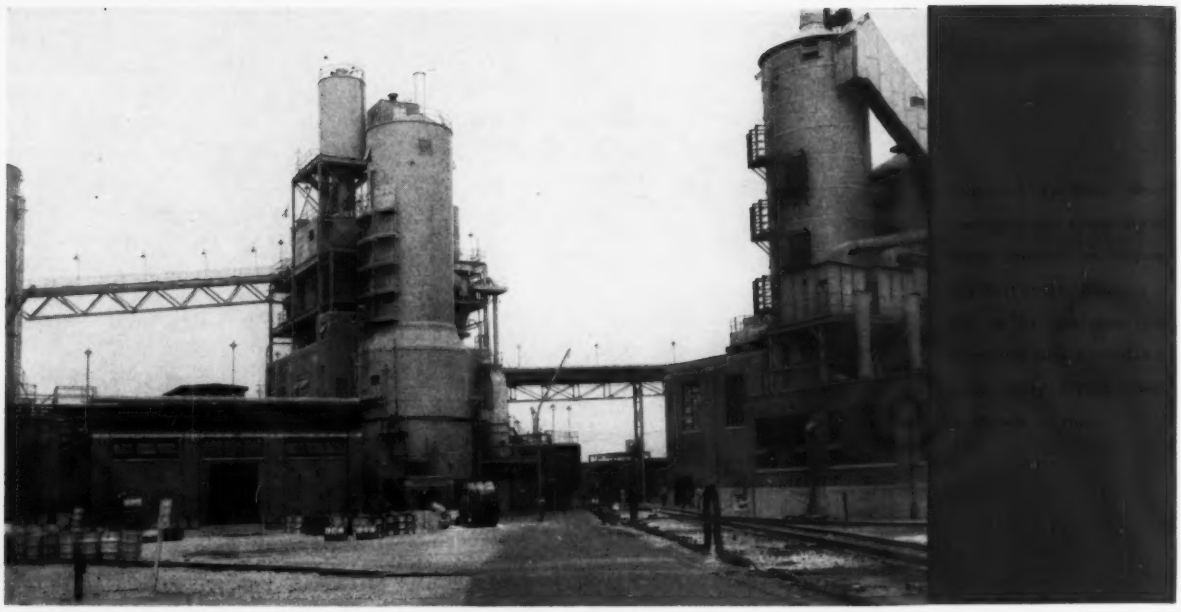
Additionally, the factory ships P&G products to growing overseas markets in South America, Africa, Europe and the Near East, and makes miniature bars of soaps provided by hotels and motels throughout the eastern states, and by resort hotels in such distant vacation spots as the Virgin Islands, Bermuda, Puerto Rico and the Netherlands West Indies.

For P&G's industrial customers, the plant produces finishing products used in the manufacture of textiles; glycerine for a wide variety of end-uses including dynamite, drugs, and the treatment of tobacco; and even a dietary supplement used in numerous cattle feeds.

To a large degree, the story behind Port Ivory's growth was uncovered shortly after the plant began operations. On December 21, 1907, a now-unknown reporter for the *Richmond County Advance* took note of the newly-established factory as evidence that "Staten Island is coming more and more into its own as a manufacturing center." In prose true to the best turn-of-the-century journalistic style, the reporter called attention to certain aspects of the factory which today continue to be characteristic of both Port Ivory and P&G:

Good working conditions – "Due regard is given to the health and safety of the operatives. The machinery is driven by direct-acting electric motors, doing away

Richard R. Deupree, right, board chairman of Procter & Gamble, cuts birthday cake at employees' luncheon commemorating 50th anniversary of Port Ivory. Long service employee, Joseph Shannon (left) received first slice. Luncheon was served in circus tent.



with shafts, belts, and gears, which are a fruitful source of accidents."

Efficiency, high quality standards — "The establishment is equipped with the latest devices for increasing the quantity and improving the quality of the product. Even the delicate operation of wrapping and packing is accomplished by automatic machines."

Corporate stability — ". . . a company which has grown into one of the nation's great 'industrials,' . . . with its stock so reliable and valuable that it is rarely found on sale."

Advanced employee relations — "But not the least important feature is the liberal treatment of employees through a generous plan of cooperation, whereby every operative may become a stockholder in the concern. The fact that a large proportion of the operatives have availed themselves of this plan proves its satisfactory working."

And prophetically, the newsman reported, "But the plant is not yet complete. More buildings are being erected and more machinery is being installed."

Fifty years later, his statement is as true as it was the day it was written. Throughout the years, Port Ivory has undergone almost continual change.

Frequently, visitors to Port Ivory comment on the evidence of physical change they see during tours of the plant. Usually, of course, these changes are relatively slight—a company doesn't come up with a completely new product like synthetic detergents too often—but to a person unfamiliar with the industry, they seem sufficient to warrant comment.

One visitor recently summed up the reaction of many over the years: "It'll be a fine factory," he said, "if you ever finish it."

The chances are Port Ivory will never be "finished". Competition being what it is in P&G's business fields, no company can afford to call a halt to further efforts to serve the public through new and improved products.

Last month, as Port Ivory marked its 50th anniversary, for example, construction crews were putting the finishing touches on facilities that will add "Comet" cleanser to the factory's list of products. Earlier this year, equipment was installed for the production of "Zest" bath and beauty bar, a combination synthetic detergent and soap in bar form, which is still not available in the New York area.

Such innovations have become almost routine at Port Ivory as P&G has adapted its operations and products to advancing technology and changing consumer preferences. The result has been a history of gradual growth at Port Ivory and other P&G factories throughout the country. The alternative would have been to resist change and limit service to the public. However, P&G believes that any company which takes such an alternative will ultimately disappear from the industrial scene.

In addition to the numerous laboratory-born products which have steadily broadened operations and increased employment, Port Ivory further qualifies for the title

G. L. Andrews, division manufacturing superintendent at Port Ivory is responsible for the administration of all manufacturing activities at the plant. He is 40 years old, a graduate of the University of Washington, and has been with P&G since 1943.

"the plant that research built" because three major scientific developments have brought continued growth:

1. Synthetic detergents—This major research development was largely the outcome of many years work by P&G scientists and culminated in the production of the first all-purpose household detergent, "Tide", in 1946 and similar products since then.

2. Continuous soap-making through the use of the hydrolyzer — developed by P&G research — which made it possible to manufacture in several hours the same amount of soaps which required several days with old-style soap kettles. After developing this streamlined soap-making method, P&G installed new soap production units at Port Ivory in 1941.

3. Hydrogenation which made it possible to produce an excellent all-vegetable shortening for home use from vegetable oils, particularly cottonseed oil. Part of the Port Ivory plant that was built in 1926 to produce "Crisco" and bulk shortenings was a direct result of the development of the hydrogenation process.

In recent years, P&G's introduction of synthetic detergents and its many improvements in other products obsoleted about one-half of its 1946 plant equipment, including much of Port Ivory's facilities. This obsolescence accounts substantially for the fact that since World War II P&G has spent more on its plant facilities — some $400,000,000 — that it did the first 100 years of its history.

Just as consumer acceptance mirrors the dependability of a company's products, employment records provide a reliable picture of its employee-management relationship. Frequent hirings and firings indicate basic problems; long-service records are signs of mutual respect and understanding.

The people working at P&G's plant at Port Ivory have amassed an impressive longevity record: Of a total employment of 1,425, the average employee has been with P&G about 17 years; 608 employees, 42 percent of the total, have been with P&G 20 years or more; 183 employees have been with the firm 30 to 40 years; 416, 20 to 30 years; 222, 10 to 20 years and 542 have less than 10 years with P&G.

Additional evidence of good employee relations is the fact that about one of every three employees has at least one other relative also working at the P&G factory. Included among many groups of relatives are: 91 sets of brothers, 69 sets of father and son, 35 husband-wife teams, 14 sets of father and daughter, 29 sets of sisters and brothers.

Of the 176 retired employees, 45 have sons or daughters working at Port Ivory.

Richard R. Deupree, chairman and former president of Procter & Gamble, accepts from Deputy Commissioner of Commerce and Public Events, Vincent O'Shea, New York City's certificate of merit, saluting the company as a "pioneer in establishing policies to insure the integrity of its products and beneficent employee relations."

★

West Europe Soap Sales Up

Soap production in western Europe increased four per cent and synthetic detergents output rose 14 per cent, in 1956 compared with 1955. These figures were published recently by the soap and detergent working party of the chemical products committee of O.E.E.C. Organization for European Economic Co-operation).

Practically the entire output of O.E.E.C. member countries is accounted for by 14 nations. These 14 producer nations report an aggregate production of 1,600,000 tons of soap and nearly 900,000 tons of synthetic detergents.

The rise in soap and detergent production was spurred by events in the Middle East and particularly the fighting in Egypt late last year, O.E.E.C. feels. Increased soap sales last year, reversing a trend of previous years, are expected to decline in 1957. Production of synthetics is expected to continue its growth, but at a slower rate.

Prices of soaps and detergents have remained materially unchanged.

Petrochemicals investment in Western Europe (in terms of plants in operation) rose during 1956 by about 15 per cent to $372,000,000, according to O.E.E.C.'s petroleum chemicals working party. It is expected to rise even more rapidly to over $980,000,000 by the end of 1959.

Production is expanding accordingly. Total carbon content of petrochemicals produced by O.E.E.C. members in 1956 amounted to 470,000 tons and is expected to exceed 1,200,000 tons by 1960. Most of this expansion will be in polyethylene, ethylene oxide derivatives, detergent raw materials, solvents, synthetic rubber, etc.

Detergent Advances Reported to

DETERGENTS and detergency were discussed by eight speakers at the 31st fall meeting of the American Oil Chemists' Society held in Cincinnati, Sept. 30 through Oct. 2. The technical program, consisting of 53 papers, was preceded on Sept. 30 by presentation of the annual fatty acid award for 1957 sponsored by the Fatty Acid Producers' Council, a division of the Association of American Soap & Glycerine Producers and administered by AOCS. The year's award was presented by C. W. Hoerr of Armour & Co., to William F. Ashley, Joseph W. Manning, Jr., and Alfred Paolin, Jr., all of Drexel Institute of Technology, for their paper on "Thio Esters of Long-Chain Acids and Long-Chain Alkanethiols."

The general session, the morning of Sept. 30, was opened by a paper entitled "Use of Statistical Techniques with Standard Product Specifications," by Harry Smith and T. F. Waters of Procter & Gamble Co., Cincinnati. Standard product specification is a commonly adopted procedure to insure uniform finished product quality especially in a multiple plant operation. However routine compliance with such specifications is possible only where the processes are controllable to the necessary degree. Analysis of variance is the statistical technique suggested by the authors to insure the necessary precision in processes control.

Over the past decade the buying service group of Procter & Gamble Co. has carried on an educational campaign to familiarize producers with the techniques necessary to derive the highest quality fats from available raw materials, according to D. S. Austin of P&G. Mr. Austin's paper was entitled "Quality Improvements in Inedible Tallow and Grease." A much higher proportion of the total fat supply has become available in form of light colored fat and the characteristics of the various commercial grade fats have been improved. A substantial part of this advance in quality and the consequent economic gains by the producer are attributed to the P&G educational efforts. Mr. Austin briefly outlined the most important principles of the upgrading program.

"Hydrogenation of Conjugated Linoleic Acid Soaps" was described by C. R. Scholfield, E. P. Jones, J. A. Stolp, and J. C. Cowan of the Northern Utilization Research and Development Division, Peoria, Ill. According to the abstract of this paper alkali conjugated linoleic acid may be hydrogenated as the sodium soap in aqueous or ethylene glycol solution with commercial nickel catalysts. Under suitable conditions this acid is reduced predominantly to monounsaturated acids with only a slight increase in saturated acids. One set of conditions which was found suitable is as follows: Ten grams of conjugated linoleic acid, seven grams of sodium hydroxide, 250 milliliters of water, and 0.05 grams of nickel were placed under 40 lb./in. hydrogen pressure and heated at 140°C. for one hour. The acids prepared from the reaction mixture had an iodine value of about 90. Oxidation and chromatographic analysis of the resultant dibasic acids indicated the presence of over 60 per cent with double bonds in the 10, 11, and 12 positions.

Detergency Field Tests

DETERGENTS and detergency were the subject of the afternoon's session, Sept. 30. A. R. Martin, Whirlpool Corp., St. Joseph, Mich., presented a study on "Prac-

Visitors at exhibits during 31st fall meeting of the American Oil Chemists Society in Cincinnati, include (l. to r.): N. W. Ziels, Lever Brothers Co., Hammond, Ind., M. M. Durkee, consultant, Decatur, Ill.; F. H. Smith, Torresdale Machinery and Molding Co., Philadelphia and K. C. Tucker, Oakite Products Co., New York City.

Oil Chemists

Other AOCS exhibit visitors include, left to right, Ed Dixon of Harshaw Chemical Co., Cleveland, and R. H. Potts of the Fatty Acid Division of Armour & Co., Cook, Ill.

tical Detergency Evaluation." Standard soils and standard soiled samples have an important but limited part to play in the selection of the optimum procedure under field conditions. In research laboratories, where controlled studies of the variables in the washing process are conducted, standard soils and samples play a major role. However, when faced with a household machine and variables fixed at arbitrary or accidental levels, one needs more practical information to select the best washing procedure. Mr. Martin reported some observations made on the same clothes over a long series of repeated wear and wash cycles. These involved color measurements taken on: 1. standard soiled samples washed with the load; 2. redeposition swatches washed with the load; and 3. cotton T-shirts worn by a member of the family between washes. Measurements on the T-shirts pointed up some problems in practical detergency not shown by the soiled samples or redeposition swatches. Specifically, a tendency for yellow color build-up in this garment was revealed. After some 10 to 15 washes the yellow color becomes objectionable to the point where the user is dissatisfied with the machine and the detergent.

Heavy soil redeposition can occur under conditions of high soil removal, according to Mr. Martin, who said that synthetic detergents pose a far more serious redeposition problem than is generally assumed. Insufficient CMC present in syndet formulations is one of the major reasons for this difficulty.

"The Cutaneous Effects of Soaps and Synthetic Detergents" were studied in a paper by R. R. Suskind, College of Medicine, University of Cincinnati. Salutary effects of soaps and detergents on normal skin include removal of cutaneous secretions, cellular debris, pathogenic microorganisms, air pollutants and potentially hazardous contactants deposited on the skin. Soaps and detergents are employed effectively as preventive and/or therapeutic agents in certain specific dermatoses such as acneform eruptions, seborrhea and seborrheic dermatitis, infections and infestations. In certain dermatoses some cleansing agents are not tolerated and substitutes are prescribed by the physician.

Under certain complex conditions the use of soaps and synthetic detergents may give rise to cutaneous changes in susceptible individuals. However, it has been shown that washing compounds act rarely as sensitizing agents.

Clinical studies were conducted into the nature and causes of skin reactions attributed to soaps and syndets. A group of patients suffering from acute and chronic dermatitis on both hands was removed from their home and work environments and hospitalized. The dermatitis in these patients was of diversified origin but soaps and detergents were in each case suspected of being factors. Each individual was exposed exclusively to solutions of commercial washing products in an attempt to reduce the trouble making factor to one. Over a period of two weeks, immersion tests were performed on one hand with solutions of a specific laundry detergent or of soap at a standard temperature for a standard length of time. The control hand was immersed in tap water. Most of the patients showed improvement, macroscopically and microscopically, on both hands. Furthermore, all participants showed identical response in both hands. These observations indicate that cases of dermatitis linked to the use of soap and detergents are probably not caused by these agents alone. Other physical and chemical factors combine with the washing agents to cause skin reactions. These factors may include ambient temperatures and humidity, other chemicals to which the modern home maker is exposed, mechanical trauma, chronic bacterial and fungal infection, as well as emotional factors.

Another paper dealing with cutaneous effects of detergents was presented by G. R. Ward and B. L. Garner, Los Angeles Soap Co., Los Angeles, Calif., under the title: "Detergent Mildness from the Evaluation Viewpoint." Studies of detergent interaction with skin and

hair were reviewed. Investigations of textile lubricity were described insofar as they help to throw light on the response of skin and hair. A number of pertinent methods of evaluation were discussed.

Detergents in Sewage

A REPORT on "Recent Research on the Effects of Detergents in Sewage Systems" was presented by J. D. Justice, Lever Brothers Co., Edgewater, N. J. Occasional difficulties caused by foaming in sewage disposal systems have been blamed on the increased household use of synthetic detergents. Members of the Association of American Soap and Glycerine Producers have an obvious and compelling interest in establishing the possible effects of detergents on sewage systems. The association has therefore supported research into this subject at four universities. Four different facets of the problem are being investigated: 1. Effect of detergents on frothing in sewage treatment plants; 2. microbiological degradation of a widely used detergent component, namely alkyl benzene sulfonate (ABS); 3. the fate of ABS in sewage treatment; and 4. the fate of complex phosphates in sewage treatment and their effect on normal coagulation and sedimentation operations practiced in conventional water purification.

Field studies at five treatment plants indicate that increased frothing correlates more closely with increasing pH or total organic nitrogen than with total ABS. With increasing suspended solids a corresponding increase in the total ABS was found combined with a drop in frothing tendencies. In concentrations present in domestic sewage, ABS is not toxic to the bacteria in activated sludge. Commercial ABS varies in its effects on different bacteria acting on waste organic matter: while it stimulates some it has no effect on others.

According to preliminary laboratory findings soil bacteria in activated sludge can be adapted to degrade ABS.

Pilot plant studies in water purification indicate that complex phosphates at levels expected to occur as a result of the use of commercial detergents can interfere somewhat with the efficiency of turbidity removal. Various new coagulant aids are being tested. However, condensed phosphates do not persist in natural waters. Only extremely low concentrations have been found in streams that receive sewage effluents upstream from the sampling points.

Simple and rapid analytical procedures are being developed for the accurate determination of phosphates and ABS at low concentrations in sewage systems. In cooperation with other interested parties the Soap Association intends to continue research necessary to resolve the sewage foaming problem.

"The Effect of Oil Films on the Cleanliness of Surfaces," by E. H. Armbruster and G. M. Ridenour, University of Michigan, Ann Arbor, reported experiments proving the difficulty of cleaning hydrophobic i.e. oil or grease covered surfaces. Radioactive bacteria were used as indices of soil removal. Thoroughly precleaned china and "Melamine" plastic dinner plates were soiled with three different greasy films: Wesson oil, butter, and mutton tallow. Radioisotope tagged bacteria, in this case *Micrococcus pyogenes var. aureus*, were scrubbed into these films. A series of dishes soiled with tagged bacteria (but no oil film) served as controls and protein films of egg white and egg yolk were used for comparison. After soiling, the dishes were washed in a commercial dish washing machine of the revolving jet spray type. Wash period, rinse period, and temperature were kept uniform throughout the experiments. Three different commercial detergents and plain water were used.

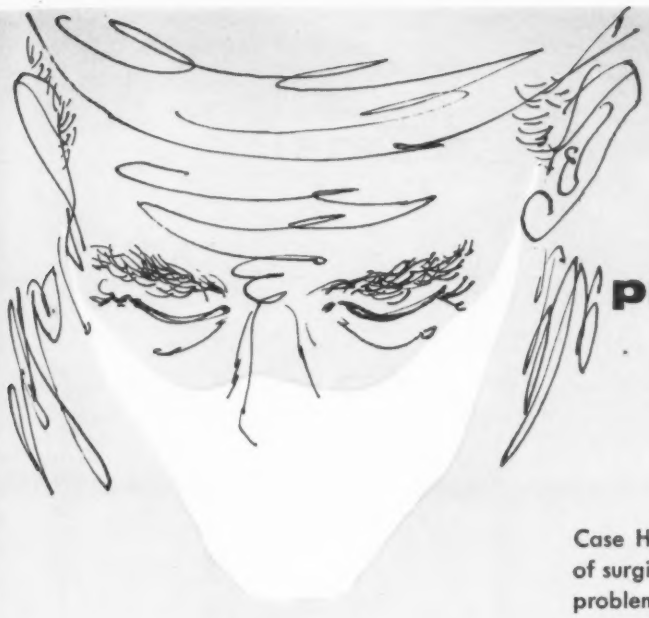
Data obtained in these studies show that only one of the detergents tested removes effectively all soils from both surfaces. This was a comparatively low sudsing detergent which the machine could handle at a higher concentration. Detergents B and C removed mutton tallow and butter from china but were ineffective when plastic utensils served as substrate.

Wesson oil proved to be more difficult to remove from both types of surfaces than either butter or mutton tallow. Contrary to popular belief, the protein films of egg yolk and egg albumen were washed off more easily than any grease type film. All of the soils tested were more readily removed from china than from plastic.

Results on glass and cutlery

(*Turn to Page* 91)

At the AOCS exhibit of Chemical Rubber Co., Cleveland, discussing laboratory equipment, are: Lloyd Mountford, Chemical Rubber Co.; E. L. Motsinger, Beckman Instruments, Chicago and W. A. Peterson, U. S. Testing Co., Hoboken, N. J.

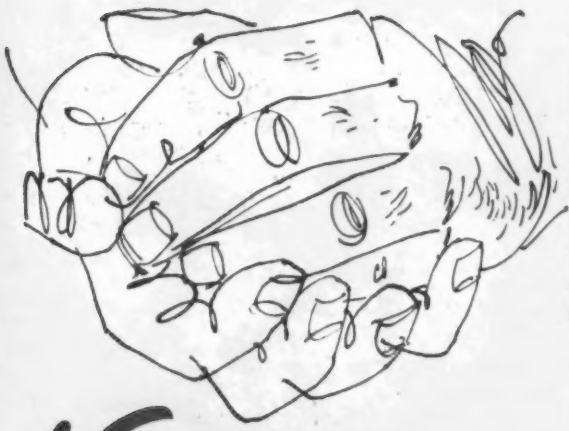


you, too, can profit from stability in OLEIC ACID

here's how Emersol® 233 LL Elaine increases shelf-life of a surgical soap

Case History No. 83-02: "A large manufacturer of surgical and germicidal soaps continually had problems of storage stability of a high grade surgical soap. The development of rancidity and changes in color were particularly disturbing to users of the soap especially where cleanliness and sterilization are imperative. Upon investigating Emersol 233 LL Elaine, this manufacturer found it so superior to the double distilled oleic acid he had been using, that it eliminated all problems of instability and odor development. Emersol 233 was also tried in other germicidal soaps in this manufacturer's line and the improvement in stability was again outstanding."

This is but one example of how outstanding stability improved a group of products. In any product, the replacement of ordinary oleic acids by a comparable Emersol grade prevents the development of rancid odors and avoids discoloration, breakdown of emulsions, changes in texture, and any deterioration of performance. So, why risk your products' good reputation when you can guard against failures so easily—by always buying the Emersol brand when you need oleic acids.



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SALES DEPARTMENT

Emery Industries, Inc., Carew Tower, Cincinnati 2, Ohio

New York • Philadelphia • Lowell, Mass. • Chicago • San Francisco • Cleveland • Ecclestone Chemical Co., Detroit

Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

Export: Carew Tower, Cincinnati 2, Ohio

In Canada: Emery Industries (Canada) Ltd., 639 Nelson St., London, Ontario.

Emery Industries, Inc.
Dept. S-11, Carew Tower
Cincinnati 2, Ohio

Please send me 20-page Emeryfacts titled "Emersol Oleic Acid."

Name.....Title.....

Company.....

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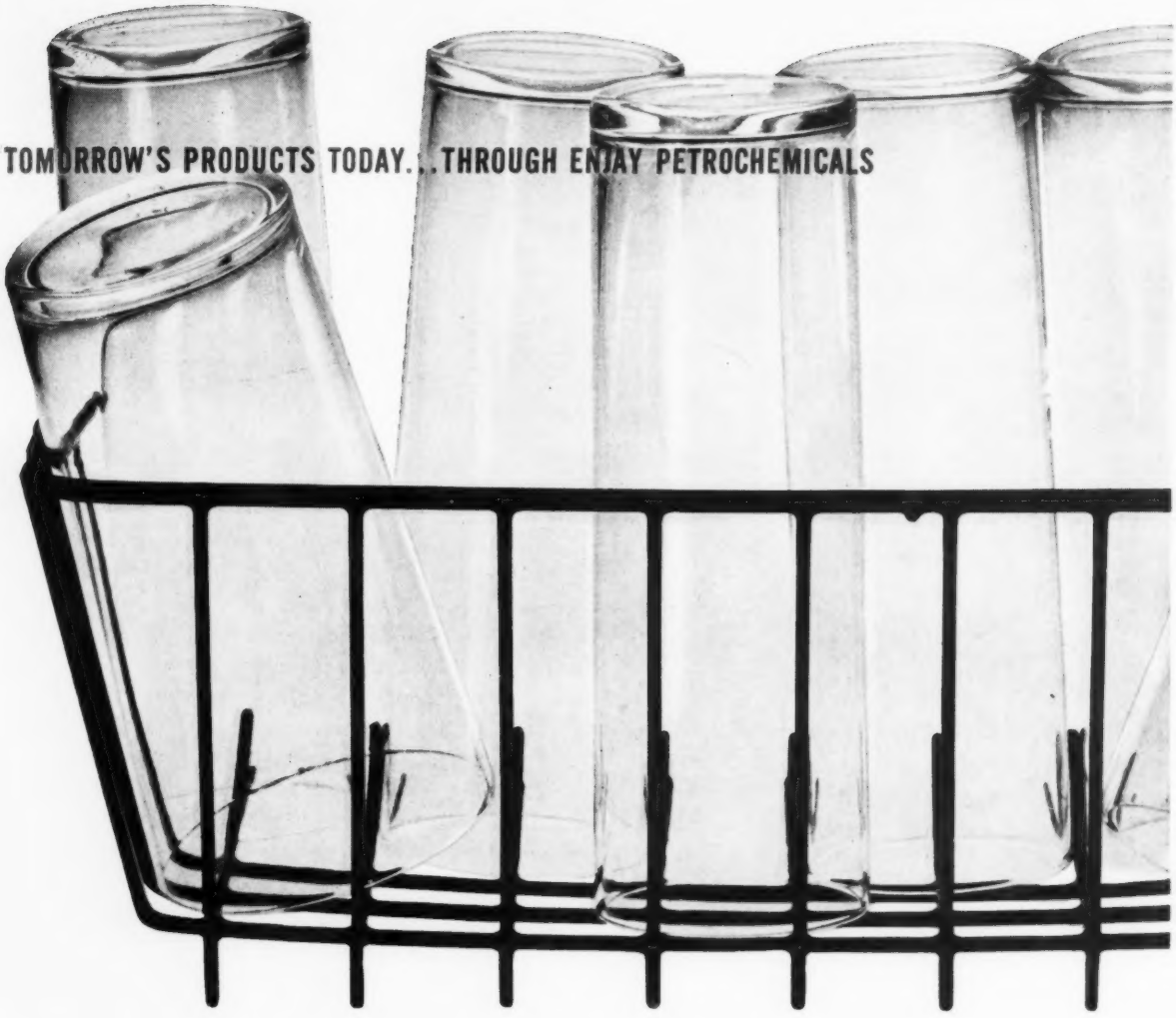

Basic raw materials for DETERGENTS that leave every glass with a "Crystal Sparkle"

There is solid sales-appeal in a detergent for home or restaurant use that leaves every glass with a "Crystal Sparkle." Marketing one of these new detergents will put new sparkle in your sales chart, too!

Every manufacturer of detergents should investigate Enjay Tridecyl alcohol, Tripropylene and Tetrapropylene—high-quality petrochemicals that can play key roles in the manufacturing process. These, and other Enjay petrochemicals, are making significant contributions in the manufacture of many products characteristic of the modern American standard of living.

The modern, well-equipped Enjay Laboratories have recently been expanded and are at your service in the application of any Enjay petrochemical. Call or write for further information.

Enjay offers a widely diversified line of petrochemicals for industry:

ALCOHOLS & SOLVENTS: Lower Alcohols, Oxo Alcohols, Ketones and Solvents; OIL & FUEL IMPROVERS: Detergent Inhibitors, V-I Improvers, Oxidation Inhibitors; CHEMICAL RAW MATERIALS: Olefins, Diolefins, Aromatics; ENJAY BUTYL RUBBER & VISTANEX.

ENJAY

Pioneer in Petrochemicals

ENJAY COMPANY, INC., 15 W. 51st STREET, NEW YORK 19, N. Y. Akron, Boston, Chicago, Detroit, Los Angeles, New Orleans, Tulsa

CHELATION HIGHLIGHTS

VERSENE 100

Completely inactivates calcium and magnesium ions over wide pH range . . . is easily included in soaps and syndets

The tetrasodium salt of EDTA—most effective chelating agent commercially available

Calcium chelation value** (product specification)	100
Active ingredient	Na_4EDTA
Molecular wt. of active ingredient	380
Physical form	liquid
Bulk density, lb./gal.	10.9 (1.31†)
Freezing point, °F.	−27
pH	11.8 ± 0.5
% solids	48
Color	light straw
Water solubility Gms./100 Gms. at 25°C	∞

**Mg. $CaCO_3$/gm. product at pH 11 †specific gravity

To date, no other agent commercially available offers the chelating effect and versatility of the tetrasodium salt of EDTA*. Unlike other agents, the tetrasodium salt of EDTA does not lose complexing power in alkaline media or at high temperatures. Versene 67, Versene 100, Versene Powder and Versene Beads are Dow trademarks for the various liquid, powder and bead forms designed to satisfy specific processing conditions.

The concentrated liquid form, Versene® 100, is easily incorporated into practically every type and form of soap or detergent—flake, powder, bar, granulated and especially liquid formulations. It locks hardness and trace metals in solution within an inner-ring structure . . . keeps them completely inactive over a wide pH range.

Improves processing

Because Versene 100 holds calcium and magnesium ions in a claw-like grip, process as well as product improvements are realized. The absence of insoluble soaps simplifies filtration. Chilling is eliminated, too, since no calcium or magnesium soaps are present to precipitate under lowered temperatures. In liquid soaps, Versene 100 provides a clarity with tap water that before was only possible with distilled or rain water! Such soaps are lighter colored, protected against rancidity and color change. Silica deposit is retarded when stored in glass containers. In addition, finished liquid soap with Versene 100 won't clog dispensing equipment.

Amounts required

Versene 100 and metal ions combine in a 1:1 molar ratio. The following table makes use of this fact to present the quantities required to inactivate various metal ions. Since the effects of competing ions vary in each industrial situation, the amounts shown are approximate. However, these tabulated figures can be successfully used as "rules of thumb" in solving metal ion problems.

Effective pH range	Parts of Versene 100 required . . .	. . . to chelate one part of metallic ion
Below 7	17.9	Fe^{+3}
—	17.9	Fe^{+2}
Up to 12.5	15.8	Cu^{+2}
Up to 13.7	17.0	Ni^{+2}
Up to 12.1	4.8	Pb^{+2}
Up to 12.9	15.3	Zn^{+2}
Up to 13.4	17.0	Co^{+2}
—	37.1	Al^{+3}
Up to 12.4	18.2	Mn^{+2}
Above 6.0	25.0	Ca^{+2}
Up to 11.9	41.1	Mg^{+2}
Above 6.0	7.3	Ba^{+2}

Improves product effect

The big advantage in soaps is that Versene 100 prevents the precipitation of hard-water soap scum. In syndets, it prevents detergency loss that results from calcium and magnesium salt formation. Synthetic detergents may also form precipitates through reaction with iron and other divalent metallic salts. For this, specialty chelating agents—Versenol® and Versene Fe-3 Specific®—are available.

Part of a series

Solubilizes proteins . . . saponifies fats and oils . . . prevents curds and film . . . provides synergistic action with quaternaries—these plus other advantages of Versene 100 are giving detergent formulators a competitive edge in numerous markets, under all water-hardness conditions. We want to emphasize, however, that Versene 100 is but one product of the Versene series. For within these chelating agents lies the answer to practically every metal-ion problem . . . in processing and product end-use . . . throughout the pH range. Write us for a sample and technical data on Versene 100 or any member of the series. Or contact your nearest Dow sales office. Also available is a 16-page brochure describing the chemistry of chelation, Dow chelating agents and their uses. Ask for "Keys to Chelation". THE DOW CHEMICAL COMPANY, Midland, Michigan, Organic Chemical Sales, Dept. CA 1306A-1.

*ethylenediaminetetraacetic acid

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Up to 13.4	17.0	Co^{+2}
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Up to 12.4	18.2	Mn^{+2}
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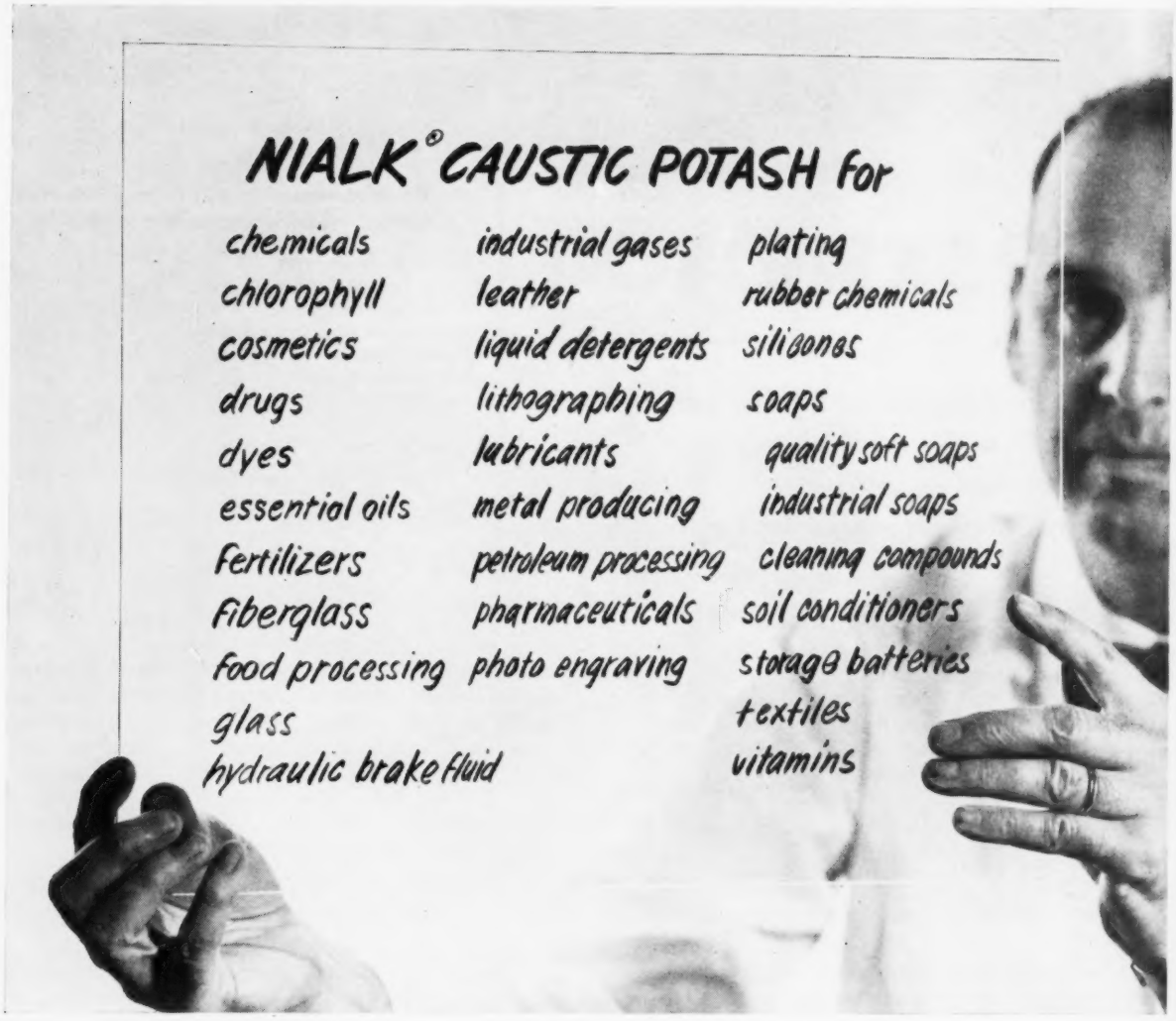

There's a reason why caustic potash is specified

In each of these uses caustic potash does something no other alkali can do

In some soaps, for example, it's the greater ability of potash soaps to lather in cold water that's important.

In other products, it's the greater *purity* of caustic potash that counts —or its greater reactivity or ability to absorb gases. Caustic potash also has many other "skills."

Making caustic potash takes skill, too. Getting it to you uncontaminated takes skill. Which is why you are sure of getting all the "extra" you pay for when you order NIALK® Caustic Potash.

You get the skill that pioneered caustic potash on this continent more than 50 years ago—the skill that now supplies a substantial part of U. S. requirements.

If you'd like to find out just why this skill has inspired such confidence, and how it might benefit your processing, write for our technical data sheet and bulletin on Nialk Caustic Potash.

You can get Nialk Caustic Potash in these forms and grades:

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Regular grade ..... 45 to 52%
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Solid, flake, granular

Regular grade ... 85 and 90%
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Wax strippers
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and other
Chemical Specialties

Some idea of the variety and number of automotive chemical specialties currently being marketed may be gained from this photograph taken in the offices of Bell Co., Chicago. *See article beginning on Page 61.*

NEW GUARD FOR FLOORS

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FOR HOMES

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FLOOR POLISH BASE

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FOR TRADE SALES FORMULATIONS • High deep gloss. Excellent wear and scuff resistance. Exceptional water spot resistance. Package stability. Easy removability. Little or no loss of gloss on aging.

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An attendance of 1,000 representatives of leading manufacturers of aerosols, insecticides, disinfectants, deodorants, floor waxes and other floor products, automotive chemicals, detergent and soap specialties and other chemical specialty products is anticipated.

Leaders of the chemical specialties industry, large and small, from all parts of the country will attend to discuss their common problems in open meeting.

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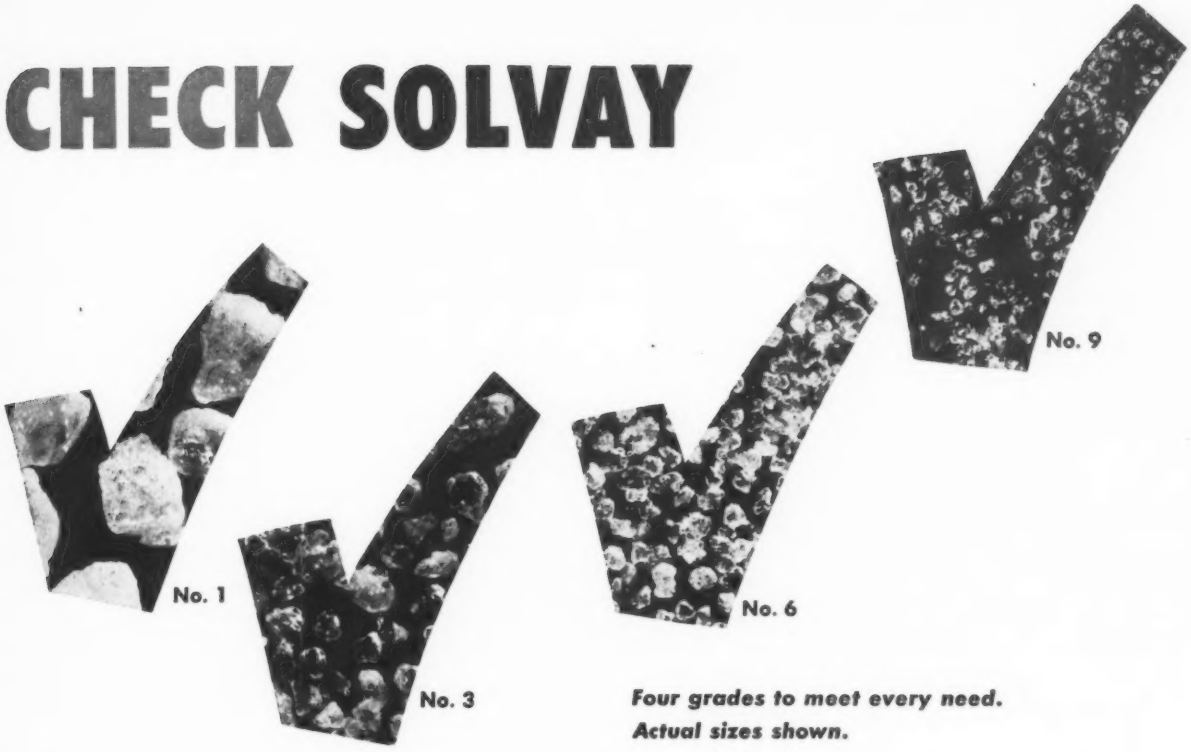

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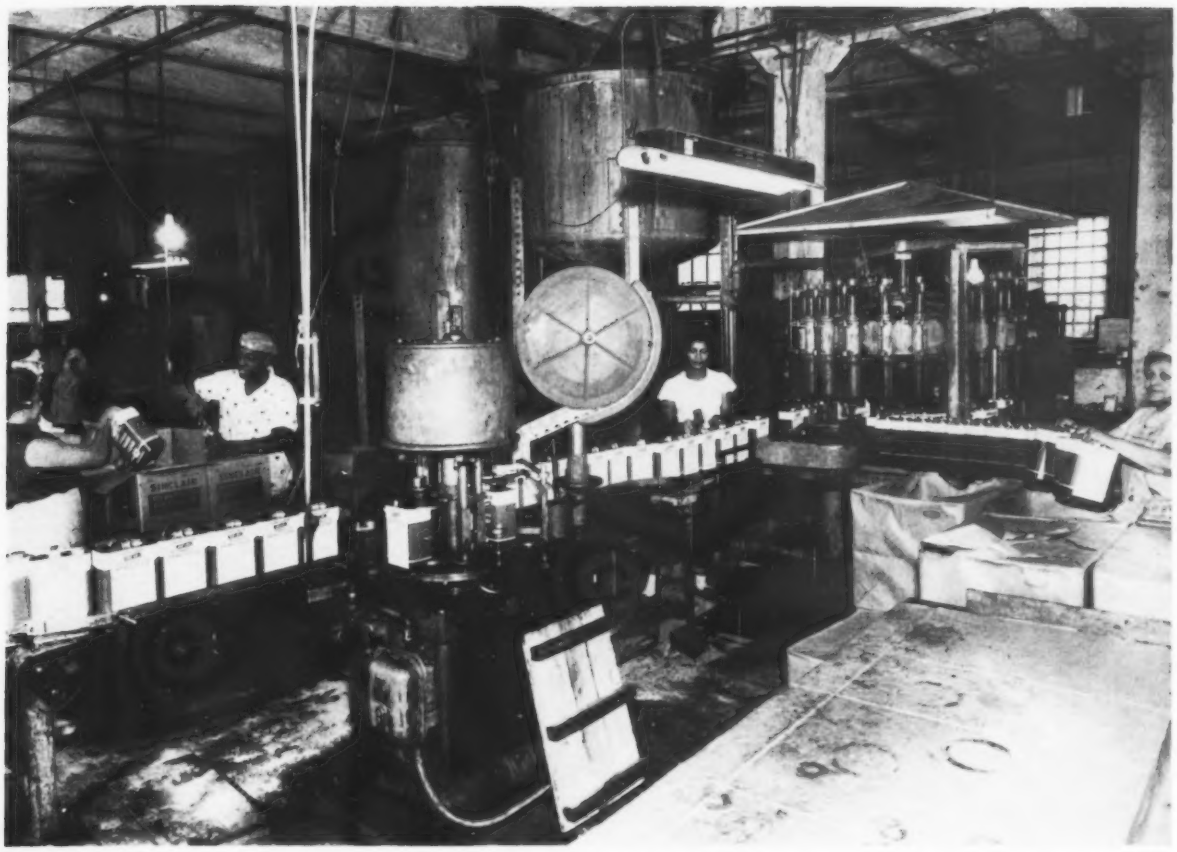


Filling line of Bell Co. plant. Woman on left removes empty cans from cartons and places them on the line. As line leaves the filler a metal (drive fit) cap is put on container and set with a mallet

Screw cap is put on by capping machine, tightened and the container comes off line ready to be repacked into shipping carton. Bell produces private label and its own automotive specialties line.

Brake Fluid Manufacturing

By L. E. Carr*
Bell Co., Chicago

BEFORE discussing the manufacture of brake fluids, we should define their general composition. Brake fluids consist of lubricants, solvents (or lubricant diluents) and inhibitors. For the purposes of this discussion, we shall consider only manufacturing brake fluids from commercially available raw materials. We will not go into the manufacture of lubricants or solvents.

Also, before discussing brake fluid manufacture, we need to know a little bit about the properties of brake fluid raw materials. The lubricants are generally clear, viscous liquids at room temperature. Some of them may present high viscosity and poor flow characteristics at winter temperatures, and may require heated storage. These materials are non-petroleum materials; that is, they are not petroleum oils. They are typified by castor oil, castor oil derivatives, and by synthetic lubricants which are polyalkylene glycols.

The solvents are generally clear, free-flowing liquids, which, with few exceptions, will flow satisfactorily at winter temperatures and may be stored outside. These non-petroleum solvents, are typified by such materials as alcohols, glycols, and glycol ethers.

The inhibitors may be liquids or solids. They are added

A step-by-step description of processes and problems involved in the manufacture of five different types of brake fluids

* Paper presented during 43rd midyear meeting, Chemical Specialties Manufacturers Association, Chicago, May 21, 1957.

in relatively small amounts, and may consist of alkaline buffers, and oxidation and corrosion inhibitors.

The very nature of our raw materials in these fluids, and the fluid itself, pretty well defines the manufacturing operation. It is essentially a blending operation, a blending of miscible liquids – that is, the lubricants and the solvents – and the dissolving of inhibitors in the blend to form a homogeneous and stable solution.

This in itself, on a small scale, is certainly a simple operation. However, we begin to consider large volumes, and when we add to that some of the other considerations, such as critical properties, exact composition, and purity – then the problem becomes more complex, and worthy of study.

I think it might be a little more interesting if each reader would consider himself a part of an imaginary brake fluid company. Let's call ourselves Company A. Let's define our operation, starting at the beginning and going right through, so we can see at least some of the problems that will be encountered in manufacturing brake fluids.

The first thing we need to do is to define our brake fluid requirements in Company A. Taking a volume figure that has been established by management and sales, let us say that this year we are going to make a million and half gallons of brake fluid.

Now, what kinds of fluid are we going to make? Just to make an interesting problem, let us say we are going to make five different fluids. Our plans call for a Heavy Duty, SAE 70R1 fluid. We are also going to make another heavy duty fluid which is a special customer requirement fluid. Then we are going to make two special service fluids; one with a special industrial application, for which none of our other fluids is suitable; and the

Captions, top to bottom: Order filling in Bell warehouse. Center, when orders are filled, hand trucks are moved to shipping dock for truck loading. Looking down on bulk storage tanks (foreground) and warehouse of Bell.

other is a military specification fluid. Our fifth fluid will be the moderate duty fluid, made under the SAE 70R2 specification.

I think the problem is complicated enough so that the production schedule to be set by management will be a simple and uniform one of 125,000 gallons a month. Our inventory policy (which, of course, will need to be established) will allow us from one to two months' production ahead of shipping schedule.

Now that we have our requirements established, we need to know the composition of the fluid. To find this, we go to the laboratory. Let us say that our laboratory staff looks over possible formulations and develops four. In the fifth case – that is, of our private brand brake fluid – the customer supplies his own formula, and also specifications for the raw materials. I insert this because it's going to give us some problems a little later on in our manufacturing picture. It complicates our supply situation, and our storage problems.

Having established the amount of fluid we want to make and what we are going to put in it, we need to go to the purchasing department to set up a purchasing procedure. The purchasing department will be concerned, first of all, with brake fluid raw materials. They will need to select the sources for the raw materials, and this will depend somewhat upon the location of the source, the availability of the raw material at that source, and the service experience with that source.

These are just three of the considerations which I think purchasing agents would like to make. The purchasing department will also need to establish estimated volume requirements needed to place contracts. We can't just go out and buy these materials as we do groceries at a moment's notice. We need to have these matters scheduled far ahead, so that the sources know what we are going to do, and we know what they can supply. Also we are going to need the schedule of shipment for these materials.

We have to package brake fluids in this manufacturing business of Company A, so the purchasing department is going to be concerned with can styling, the lining of those cans, the construction of the can, and the lithography design. We need something into which to put the cans, so the purchasing department is concerned with carton sizing and design. That will reflect again, back to sales, depending on the customer requirements. In packing materials we will need to have a contract setup, scheduling of shipments, and an inventory policy.

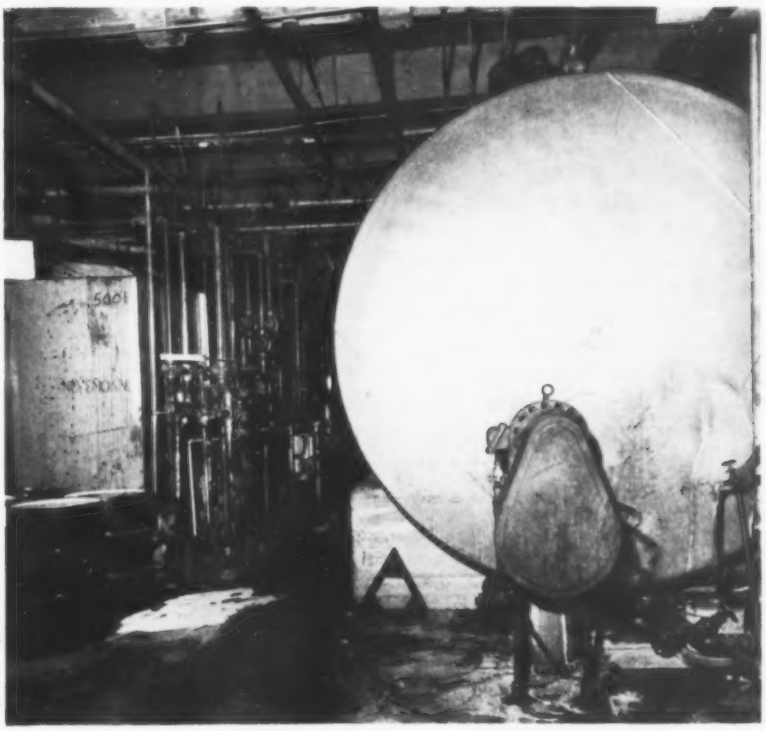
Having purchased all these materials, we will then need to go to our engineering department in the plant to see what our plant facilities are. In considering this, I made no exact calculation since this is a hypothetical situation. I did not estimate how many tanks we would need for this job, but if 12 raw materials are required, we should have that many storage tanks of adequate capacity for these materials. Some tanks will have to be heated or, at least, be indoors where they can receive heat from the inside of the plant.

Tank capacity should be sufficient to carry enough raw materials to supply our 125,000-gallon-a-month demand.

What about our receiving facilities? Ideally, we should have a separate pipeline and a pump for each raw material and each tank into which that material is going to be pumped. These materials need to be measured as they are taken in, and common measuring devices, such as scales, meters or tank gauges may be employed. Sometimes it is necessary to have all three to insure accuracy. Brake fluid raw materials are not low-priced, so accuracy is important.

Receiving procedure should be studied and worked out in advance. Who is going to receive this material? Can just any Joe Doakes out in the plant receive it, or do we have a man who is trained for this work? Company A certainly would recommend that we have a

Mixing tank at right in Bell Co. plant, Chicago. Control panel is on left. Material moves from bulk storage tanks through system of pipes and valves by pump in to mixing vat.



man trained for this work who knows the problem and who understands the materials handling system. It is important that we do not contaminate our materials. Also, this man should be taught sampling procedures, and should take samples to the laboratory and have approval from the laboratory before receiving materials.

Let us assume that we have our tanks full of raw materials and are ready for our manufacturing process, which is of the batch type. We have five different products, and certainly we hope to have five tanks of adequate capacity in which to make these – 5,000, 10,000, or 15,000 gallon tanks, whatever we decide is necessary. If we can't have a full complement of tanks, then we must scrutinize carefully the scheduling and cleaning of tanks to prevent contamination of one fluid by another.

Because of the requirements for brake fluids, and of those things mentioned earlier, the measurement of the various components going into the manufacture of brake fluid must be very accurate. For example if we are making 10,000 gallons of brake fluid, it is not practical to weigh the ingredients into the tank, so we must depend on meters and tank gauges. If we are storing raw materials out-of-doors and inside the plant temperature problems will arise in compounding our fluids.

Generally speaking, since lubricants are the more viscous materials, they should be added last to be blended with our solvents. Agitation presents no major problem. A good propeller-type agitator will work quite satisfactorily in a horizontal tank. If we use a vertical tank, a turbine-type agitator will suffice.

The blending procedure should be set up by the laboratory and the engineering department and suitable personnel should be trained for the compounding and blending operation. When our brake fluid is completely blended, a sample should go to our laboratory for tests, to see that we meet the specification under which the particular fluid is made.

It is a very rare company that has time to delay packaging in order to run all the tests required for brake fluid to be certain that it meets each specification requirement. Some of the tests take six days and some of them two weeks. Plant schedule requirements dictate that we run only the short-term tests for filling approval. The boiling point, flash point, specific gravity, alkalinity or pH, and the viscosity at 130 and at minus 40 can be determined quickly. Evaporation should be determined, but this is normally a 48-hour test. At Company A we have been able to work out a short-term test that requires 20 to 30 minutes. This test has been correlated with the 48-hour test, which will be run later for its full duration.

Having completed these tests, and having found that the brake fluid is satisfactory, approval can then be given for filling. If the brake fluid is not satisfactory, it can be corrected, rechecked, and then approved.

The long-term tests can follow. The cold tests, water tolerance, compatibility, boiling point change, and corrosion tests should be run on each fluid which is manufactured to be sure quality is maintained. Lubrication and residue should be run occasionally.

Now that we have our fluid put together, checked and ready to fill in cans, what is our next step?

(*Turn to Page* 99)

Laurel E. Carr, supervisor of development and control laboratory of Bell Co., shown at viscosity bath, an instrument for determining viscosity of brake fluid formulations.

Ten Years of Low Pressure

Aerosol Insecticides

By R. A. Fulton*
Entomology Research Division
U. S. Department of Agriculture
Beltsville, Md.

THE development of a commercially practical low pressure aerosol package dates back to some time in 1946. This was a logical development based on, but moving away from, the aerosol "bomb" which became available to the public soon after World War II. The "bomb" came in a heavy steel container originally designed for other purposes and adapted to this application.

Our investigations dealt with the possibility of using lightweight containers for low pressure liquefied gas aerosols. The high pressure package marketed in 1946 used propellant 12, sold for prices ranging from $2.75 to about $4.00. In order to conform with Interstate Commerce Commission regulations in force at that time, we were striving for efficient formulations with a gauge pressure below 25 pounds at 70°F. In screening a large number of formulations of different particle sizes we found that reduced pressure products required solvents of lower viscosity. To approach the efficiency of the high pressure unit we were forced to make an adjustment in the ratio of non-volatile constituent to propellant.

The quest for a low pressure unit necessitated not only the re-evaluation of formulations but also the solution of engineering problems. The single orifice nozzle drilled with an ordinary No. 80 drill and the short capillary tubing used on some high pressure units were found unsatisfactory on low pressure units for the purpose of producing uniform spray patterns. The need for different valves designed especially for low pressure aerosols became evident. Subsequent experiments showed that an expansion chamber was needed within the valve. A ratio of two to three of the diameter of the inner orifice to that of the outer orifice was found satisfactory. A public service patent was granted for this development.

In July 1947 our program was completely changed by an ICC exemption permitting shipment in lightweight containers of non-flammable aerosols with less than 40 pound gauge pressure at 70°F. Increased pressure and different formulations attained efficiencies equal to those previously reserved for high pressure units. Experiments we conducted at that time formed the basis of specifications used in the industry today: 80 per cent of the dispersed particles less than 30 microns in diameter, and no particle larger than 50 microns, is a stipulation developed from work done in late 1946 and early 1947.

A few of the low (below 40 pounds gauge) pressure units appeared on the market late in 1947 and in 1948 they were being sold on a nationwide basis.

In constructing plants for the filling of low pressure units all equipment had to be especially engineered for this purpose. The measuring of refrigerated materials presented one of the major difficulties which had to be overcome. A serviceable measuring device capable of handling materials at low temperatures and new analytical procedures for the checking of filled containers had to be developed.

Due to the growing interest in low pressure insecticide units we received numerous formulations for evaluation. Records, covering the period from July 1946 through December 1949, show that we prepared and tested 479 different combinations of insecticides, solvents, and propellants not only in the course of our own investigations but also for members of the industry interested in placing such products on the market.

To answer the need of a minimum standard of comparison we developed in cooperation with the Chemical Specialties Manufacturers Association the Official Test Aerosol. Apart from a few modifications, the formulas in use today are essentially like those used in

Better, more highly specialized, low pressure aerosol insecticides stem from decade of improvements in valves, formulations, containers

* Based on talk given at 43rd midyear meeting of the Chemical Specialties Manufacturers Association, Chicago, May 22, 1957.

Figure 1. Group of low pressure aerosol insecticide packages which were available in 1948. Some are still marketed.

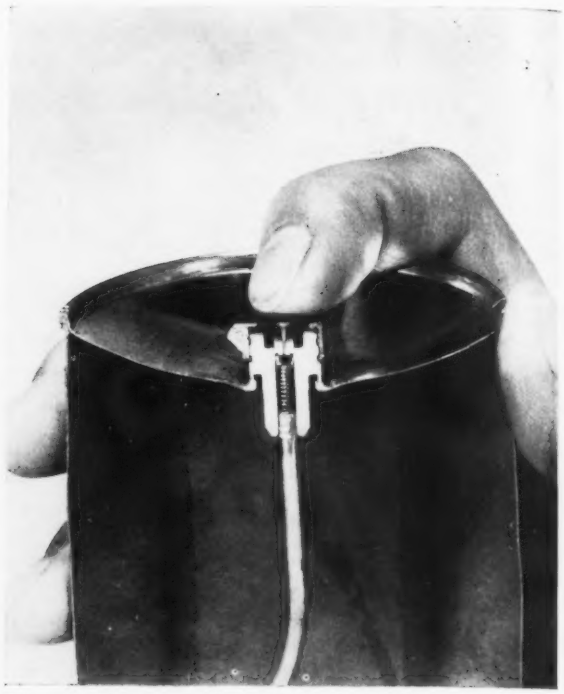


Figure 2. First commercial aerosol unit, including container by Continental Can Co., with original valve and mechanism.

1947. Although several new insecticides and synergists have been added, the insecticidal efficiency of the commercial product has not been greatly increased. More efficient pressurized insecticides have been developed to meet quarantine requirements of the U.S. Public Health Service and the U.S. Department of Agriculture. These units are used in spraying interiors of aircraft, ships, etc. But the high cost of ingredients limits this type of product to special applications.

Pressure packaging has experienced a remarkable growth because it offers an efficient and easy to use product. Government and industry have cooperated in aerosol research and development. This has resulted in the production of workable units, very few of which are defective, especially if compared with the percentage of defective packages turned out in 1948.

Aerosol containers are currently being used to dispense pressurized space sprays. While these units are effective they vary widely in particle size. There is room for improvement in formulations and valve designs.

Formation of the particles at the discharge orifice has been studied with high-speed cameras capable of taking pictures at a millionth of a second. Particle size seems to depend on the length of the cone formed at the discharge orifice. This cone somewhat resembles the cone in the flame of a Bunsen burner. Its length determines the spread in particle sizes. A long cone widens the spread, a short cone narrows it.

One of the first 25 pound gauge pressure insecticide units was prepared in our laboratory on March 4, 1947. Its valve is still in working order today. The first commercial unit of this type appeared on the market under the trade name "Jet." Figure 1 shows a group of low pressure insecticide packages which were commercialy available in 1948. While some have disappeared, several of these pioneering brands are still on the market today.

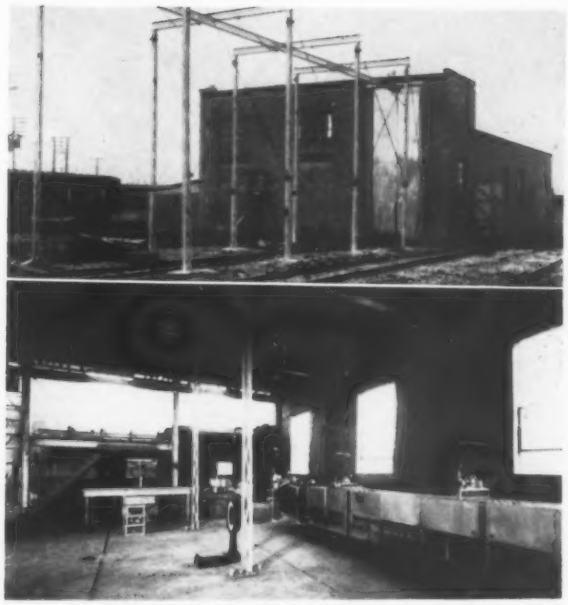
The first commercial unit including container by Continental Can Co. with original valve and mechanism appears in Figure 2. It resembles closely our hand made sample units except for the rubber tip diaphragm. The original metal syphon tube is plainly visible.

Application of organic phosphates in aerosol form has brought about spectacular improvements in the green house industries, most particularly in the production of hot house roses. By controlling the spider mite, aerosol insecticides have in some instances quadrupled the yield of rose buds in addition to increasing the length of the rose stems. What this means to the grower can best be assessed by remembering that each rose bud represents 25 cents in the retail market. Figure 3 shows a 500 foot long greenhouse being treated with an organic phosphate aerosol, according to what has become standard practice throughout the United States.

Figures 4 and 5 are original photographs of one of the oldest filling plants in the country. Note that the plant has no warehouse simply because nobody thought it would be needed. The interior shot was taken just as the plant was going into production.

Modern equipment for the

Figure 3. A 500 feet long greenhouse being treated with organic phosphate aerosol. This is now standard practice in U. S.



Figures 4 and 5. Original photographs of one of the oldest aerosol filling plants in the United States. Note that the plant has no warehouse simply because no one thought it would be necessary. The interior plant shot was taken just as the factory was starting to begin production.

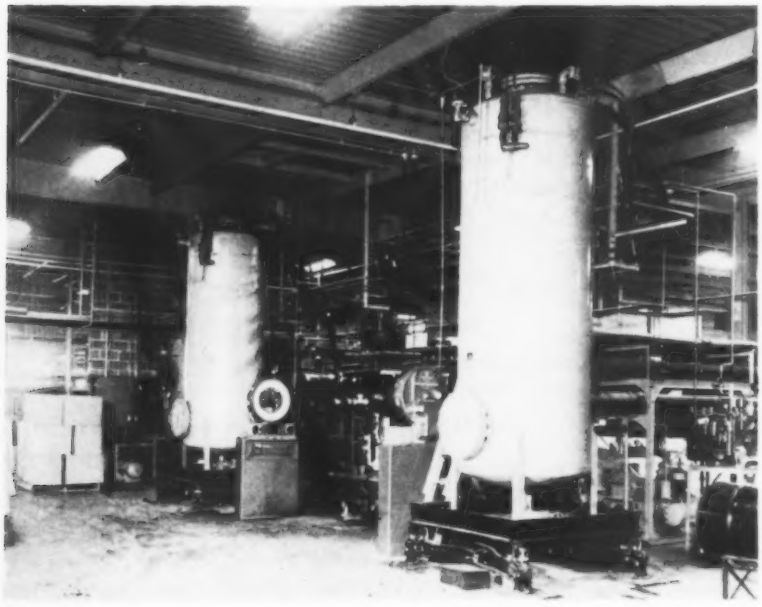
large scale mixing and weighing of pressurized materials is shown in Figure 6. Scales are capable of weighing ton lots accurately within one pound or less.

In today's filling plant the concentrate is dehydrated after mixing and prior to filling. Moisture control equipment in a modern plant appears in Figure 7.

The laboratory is becoming an indispensable and integral part of every plant, both for quality control and basic research. A typical aerosol research and development laboratory is shown in Figure 8.

An up-to-date filling operation is shown in Figure 9. This looks deceivingly simple. There is hardly a plant which is not constantly modifying and improving every piece of filling equipment.

Figure 6. Modern equipment for the large scale mixing and weighing of pressurized materials. Scales can weigh ton lots accurately.



When low pressure packaging first started on a commercial scale, about 10 years ago, the main problem appeared to be the packaging operation itself. We have progressed a long way since then. A standard method for the determination of particle size has been evolved. Procedures have been developed for the testing of valves prior to and after filling. Chemical and electrochemical methods are available by which we may find internal corrosion and predict whether your product will affect the container. We can determine water in filled cans. Flammability tests and X-ray techniques to tell liquid content have been developed. We have learned to use gas chromatography to analyze product ingredients and propellants and we have methods to determine air in the final product. All these testing methods can currently be called

(*Turn to Page* 97)

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CSMA's Model Labeling Act

Model Hazardous Substances Labeling Act for Retail Packages Prepared by CSMA's Precautionary Labeling Committee

A MODEL law, covering the precautionary labeling of retail packages which may contain hazardous substances, was announced early in October by the Chemical Specialties Manufacturers Association, New York. The act was prepared by the Precautionary Labeling Committee of CSMA and, in its present form, presents the current position of the association in respect to regulatory principles for household chemicals. According to H. W. Hamilton, secretary of CSMA, the purpose of the model act is to promote uniformity in Federal and State legislation covering precautionary labeling of hazardous substances for household use.

An earlier draft of the act was presented for consideration by CSMA members in March of this year. The comments and suggestions of the association's membership were, as far as possible, included in keeping with present legislative practice.

In addition to the seven states which now have such legislation or regulations, the U. S. Congress has before it three precautionary labeling bills, two in the House and one in the Senate, and several states are considering such legislation. The CSMA is attempting to promote uniformity in proposed laws and thus reduce the burden on manufacturers of preparing different labels for the same product sold in different states.

States that now have precautionary labeling laws or regulations include California, Connecticut, Illinois, Kansas, New Jersey, New York and Texas.

The three federal bills which have been referred to committee for further study are the Bush bill (Senate) and the Curtis and Williams bills, which are identical.

Copies of the CSMA model bill will be sent to any legislator considering the introduction of a bill on this subject. State enforcement officials are being supplied with copies.

Individual CSMA member companies may comment on the present model bill, and may make individual objections to certain sections after the introduction of the bill in any state, according to Mr. Hamilton.

The full text of the CSMA model bill, which bears the title, "Model Hazardous Substances Labeling Act for Retail Packages," follows:

Model Hazardous Substances Labeling Act for Retail Packages

A Bill

To regulate the distribution and sale of packages of hazardous substances intended for household use.

Be it enacted by the Senate and House of Representatives of the State of ..... assembled,

Title

Section1. This Act may be cited as the "Hazardous Substances Labeling Act."

Definitions

Section 2. For the purposes of this Act —

(A) The term "Department" means the Department of

(B) The term "Secretary" means the Secretary of

(C) The term "person" includes any individual, partnership, corporation, and association.

(D) The term "hazardous substance" means any substance or mixture of substances which (1) is toxic, (2) is corrosive, (3) is an irritant, (4) is flammable, (5) is radioactive, or (6) generates pressure through decomposition, heat, or other means if such substance or mixture of substances may cause substantial personal injury or illness during any customary or reasonably anticipated handling or use.

(E) The term "toxic" shall apply to any substance which has the inherent capacity to produce bodily injury to man through ingestion, inhalation, or absorption through the skin.

(F) (1) the term "poison" means any toxic substance which falls within any of the following categories: (a) Produces death within forty-eight hours in half or more than half of a group of ten or more laboratory white rats each weighing between two hundred and three hundred grams, at a single dose of fifty milligrams or less per kilogram of body weight, when orally administered; or (b) produces death within forty-eight hours in half or more than half of a group of ten or more laboratory white rats each weighing between two hundred and three hundred grams, when inhaled continuously for a period of one hour or less at an atmospheric concentration of two milligrams or less per liter of

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ALCOGUM is an extremely effective emulsion or dispersion stabilizer and viscosity controller.

- Can be furnished in various viscosities and concentrations with a pH range from 5 to 12.
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GENERAL OFFICE AND MANUFACTURING PLANTS
TRENTON AVENUE AND WILLIAM STREET
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gas, vapor, mist or dust, provided such concentration is likely to be encountered by man when the substance is used in any reasonably foreseeable manner; or (c) produces death within forty-eight hours in half or more than half of a group of ten or more rabbits tested in a dosage of two hundred milligrams or less per kilogram of body weight, when administered by continuous contact with the bare skin for twenty-four hours or less.

(2) If available data on human experience with any substance in the above named dosages or concentrations indicate results different from those obtained on animals, the human data shall take precedence.

(G) The term "corrosive" means any substance which in contact with living tissue will cause substantial destruction of tissue by chemical action; but shall not refer to action on inanimate surfaces.

(H) The term "irritant" means any substance, not corrosive within the meaning of subsection (G) of this section, which in contact with normal living tissue will induce a severe local tissue reaction.

(I) The term "flammable" shall apply to any substance which has a flash-point of eighty degrees Fahrenheit, or below, as determined by the Tagliabue open cup tester, except that the flammability of the contents of self-pressurized containers shall be determined by methods generally applicable to such containers and established by regulations issued by the Secretary.

(J) The term "radioactive" shall apply to any substance which, as a result of disintegration of unstable atomic nuclei, emits energy.

(K) The term "label" means a display of written, printed, or graphic matter upon the immediate container of any substance; and a requirement made by or under authority of this Act that any word, statement, or other information appearing on the label shall not be considered to be complied with unless such word, statement, or other information also appears on the outside container or wrapper, if any there be, of the retail package of such substance, or is easily legible through the outside container or wrapper.

(L) The term "immediate container" does not include package liners.

(M) The term "misbranded package" means any retail package of a hazardous substance, intended for household use, which fails to bear a label

(1) which states conspicuously (a) the name and place of business of the manufacturer, packer, or distributor; (b) the common or usual name, or the chemical name (if there be no common or usual name) or the recognized generic name (not trade name only) of the hazardous substance or of each component which contributes substantially to its hazard; (c) one of the following signal words: "Danger", "Warning", or "Caution"; (d) when necessary an affirmative statement of the principal hazard or hazards such as "Flammable", "Vapor Harmful", "Causes Burns", "Absorbed Through Skin", or similar wording descriptive of the hazard; (e) precautionary measures describing the action to be followed or avoided; (f) instructions, when necessary, for the first-aid treatment in case of contact or exposure, if the substance is hazardous through contact or exposure; (g) the word "Poison" for any substance which is defined as poisonous by subsection (F); (h) instructions for handling and storage of packages which require special care in handling or storage; and (i) the statement "Keep out of the reach of children", or its practical equivalent; and

(2) on which any statements required under clause (1) of this subsection are located prominently and are in English in legible type in contrast by typography, layout, or color with other printed matter on the label: PROVIDED, That the Secretary shall, by regulations, provide for minimum information which shall appear on the labels for small packages, which labels need not include all of the information required by this subsection: PROVIDED FURTHER, That the Secretary may provide for less than the foregoing statement of the hazard or precautionary measures for labels of hazardous substances presenting only minor hazards; and the term "misbranded package" shall not apply to packages of economic poisons subject to the Federal Insecticide, Fungicide, and Rodenticide Act, to packages of substances subject to the Federal Food, Drug and Cosmetic Act, or to packages of substances intended for use in agriculture, horticulture, industrial, or related uses.

Prohibited Acts

Section 3. No person shall sell, offer for sale, distribute or transport for sale within this State in a package or container intended for general home and household use any misbranded package of a hazardous substance.

Regulations and Hearings

Section 4. The authority to enforce this Act is vested in the Secretary. The Secretary shall from time to time for the efficient enforcement of this Act promulgate regulations after public hearing following due notice at least 10 days in advance of the hearing to interested persons.

Seizures

Section 5. Any hazardous substance that is in a misbranded package when introduced into or while in intrastate commerce within this State for sale within this State shall be liable to be proceeded against on libel of information and condemned in any court within this State having jurisdiction over such an action. Any hazardous substance condemned under this section shall, after entry of the decree, be disposed of by destruction or sale as the court may direct and the proceeds thereof, if sold, less the legal costs and charges, shall be paid to the State Treasurer, but such haz-

(*Turn to Page* 99)

There's safety in the shine

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Her hurried steps across highly polished floors are *safer* steps because there's "Ludox" – Du Pont's anti-slip ingredient—in the floor wax. Tiny, *transparent* "Ludox" spheres in the wax exert a "snubbing" action on every footstep . . . arrest the foot's forward motion . . . give the foot positive traction.

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Better Things for Better Living
. . . *through Chemistry*

"How to Get the Order"

Clinic for Salesmen

CLOSE to 400 chemical salesmen and sales executives attending the six annual sales clinic of the Salesmen's Association of the American Chemical Industry were told by E. E. Fogle that "there is no royal road to sales success." Mr. Fogle is vice-president of sales for Union Carbide Chemicals Co., a division of Union Carbide Corp., New York. He was one of a panel of three sales executives who discussed the general subject "How to Get The Order" during the morning session, Oct. 10. The one-day clinic was held at the Hotel Roosevelt, New York.

"If the selling function is not studied constantly and improved, it will degenerate in comparison with other phases of our economy," Mr. Fogle said. He also observed that the size of his audience would indicate that the members of the panel could give all the answers to successful selling. This prefaced his remark about there being "no royal road to sales success."

"The time and effort made in improving sales techniques are small indeed," according to Mr. Fogle, who added that "we all have been exposed to oversimplification of selling techniques." Actually, he pointed out, building a buyer and seller partnership that will endure can't be done unless the salesman is willing to serve all the needs of the buyer."

The two other members of the panel, R. W. Hooker and William H. McConnell, reminded salesmen of a few of the things they may be neglecting and cautioned them to be flexible in their sales approaches.

Mr. Hooker is senior vice-president of Hooker Electrochemical Co., Niagara Falls, N. Y., and Mr. McConnell is vice-president of sales for Diamond Alkali Co., Cleveland.

Mr. Hooker in his list of reminders advised salesmen to: get up early, work hard, know their product (s), be proud of their job, be careful about their personal appearance, ask for the order and if it isn't gotten the first time, don't be surprised or disappointed. Keep on trying, he said. Salesmanship involves enthusiasm, integrity, loyalty, perseverance and shoe leather.

In addition to salesmen knowing as much as possible about the products they are selling, they should also know how such products can be of value to their individual customers. Mr. Hooker also cautioned against burdening the purchasing agent with their story when the time was not opportune for him to listen. Salesmen should try to be in the city in which they expect to work either the night before or be on their way to that city in time to start making calls early in the morning.

Selling, Mr. Hooker declared, "is an eminently respectable profession and one which it is your duty to protect. We all learn very quickly of the pitfalls and the dangers involved, but if you have the fortitude and the intelligence to behave on the road as you would at home, and, above all, to be a gentleman in the presence of your customers and prospects, you will not only be adding greatly to your chances of success but will be providing for yourself the personal dignity which all of us should manifest in whatever task we may be engaged.

On personal appearance of the salesman, Mr. Hooker said: "Don't be so loud in your dress or in your speech, or so careless as to give the buyer any cause for diversion from the subject of your conversation. When you are talking about your product or asking for the order, you want his mind to be on that subject and that subject alone."

With one exception, Mr. Hooker said, "I cannot remember a single time when I received an order that I did not specifically ask for. Let there be no embarrassment to any of you in making it clear

"How to Get the Order" panelists, l. to r.: W. H. McConnell, Diamond Alkali Co.; E. E. Fogle, Union Carbide Chemicals Co., Division of Union Carbide Corp., and R. W. Hooker, Hooker Electrochemical Co.

Another "first" for Fairfield...

MIGHTY MIDGET AEROSOLS

Clothing, luggage and sports equipment, courtesy Abercrombie & Fitch Co.

Now you can offer your customers a 2-oz. bomb that will do the work of a regular 12-oz. aerosol. It will cover the same area, too—because each particle of spray is 6 times more potent . . . in knockdown . . . and in kill.

The valve is metered to release 100 mg. of spray each time it is activated. This insures proper application, neither too much spray nor too little.

Although "mighty midgets" represent higher concentrations, they cost less than conventional aerosols of equal killing power. They exhibit no greater staining characteristics either. The reason is obvious: the single active ingredient is Improved Pyrenone*. And, of course, when used as directed Pyrenone is *nontoxic*.

These miniature bombs will find many uses at the consumer level . . . in the home . . . and away from home. They'll point the way to new markets, bigger profits.

And remember, "mighty midgets" not only save metal and freon, but they save shelf space, too—cut way down on shipping costs.

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Elmer F. Schumacher

to the purchasing agent that you are seeking an order. True, you want an opportunity to tell him about your product, how it can benefit him, but he cannot enjoy the benefits and you cannot enjoy any of the profits unless you get the order."

Mr. McConnell pointed out that the "*how* of 'getting the order' depends to a great extent on *what* you (the salesman) is offering to *whom*." The process was described by Mr. McConnell's coined word, "Whom'n'what" or "Humin'Watt."

"Admittedly, if you are introducing a brand-new article or service in an established market, you must recognize the need for 'educating' the consumer to the advantages of the innovation. Furthermore, if the marketing problem is one involving a new product without any, or with very little, known market, you obviously must keep the horse before the cart by taking the time to create a consumer interest in, then a desire for, your offering before you can expect to get specific acceptance of it."

In the "toughest" phase of marketing—getting an established market to buy the particular brand or type of the salesman's established product or service—the "Humin'watt" gets "a real work-out—or it should!," Mr. McConnell said.

"In this area, all of us know —but occasionally need to be reminded—that we must learn as much as we can about *whom* you want to sell, collectively and individually, and of course we know we must have a thorough going knowledge of *what* we want to sell. These are prerequisites.***

"In turning on this "Humin'watt energy, . . . I suggest we do it on a prescription or individual requirement basis. We shouldn't hesitate to use the hard-sell where we are satisfied it is necessary. Inversely, we must use the low pressure approach where we think it is more likely to be productive. In other words, we must always . . . be flexible.

"In my considered opinion, there is no such thing as a hard and fast positive rule on how to get an order that could begin to apply to *all* situations. Just as people differ—and they certainly do—so does the best or proper approach to them.

"What we seem to add up to, then, is that we acquire the surprisingly readily available equipment, which is nothing more than the energizing knowledge of what it is we are trying to sell, and to whom, and then apply the so generated energy or power with a controllable rheostat of flexibility. And you can only know how much current each prospect can tolerate, or require, by seeing him often enough to evaluate properly his resistance quotient."

"What Makes a Salesman 'Tick'" was discussed by Edward M. Krech, director of purchases of J. M. Huber Corp., Brooklyn. Mr. Krech discussed the salesman's approach, interview and follow-up.

Edward M. Krech

In approaching the purchasing agent, particularly on an initial call, the salesman should know something about the firm and its products; preferably telephone for an appointment; and, finally, "be neat, be courteous and be cheerful," Mr. Krech advised.

"Most every purchasing agent is impressed by the salesman who has 'cased' his prospect before the initial call. Far too frequently a salesman calls cold the first time and expects the purchasing agent to provide" data on the size, number and location of plants, products, personnel, etc., which can be obtained from a number of sources, Mr. Krech explained. He added that "it is a strong and interested approach to show that . . . (the salesman) is interested and considerate enough to dig up facts which are readily obtained. Most purchasing agents are then more willing to supplement . . . (the salesman's) information with data not readily

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Luncheon speaker, General John E. Hull, president of the Manufacturing Chemists Association, with R. W. Hooker, and Sam F. Teague, Jr., Monsanto Chemical Co., general chairman of the Sales Clinic Committee.

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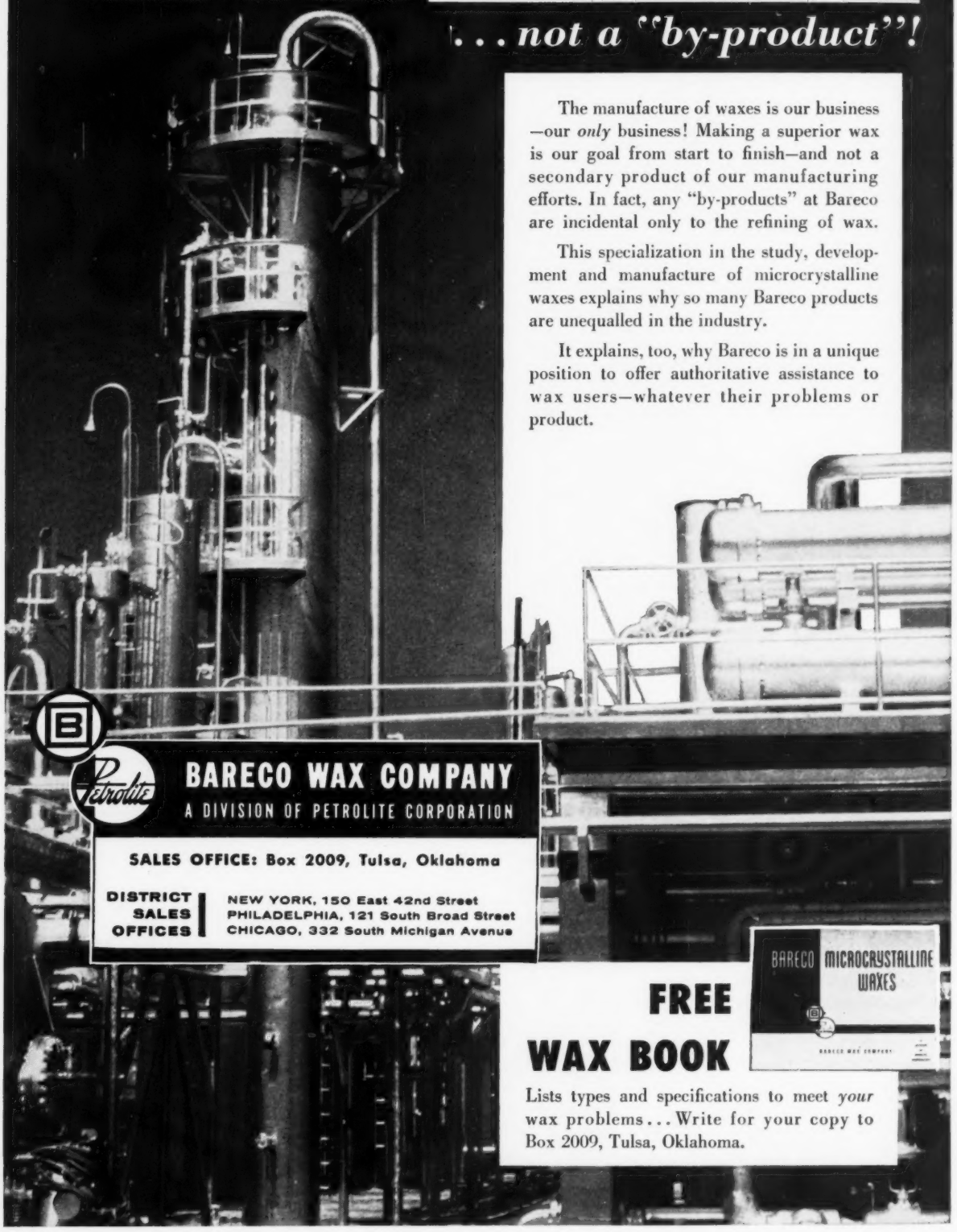

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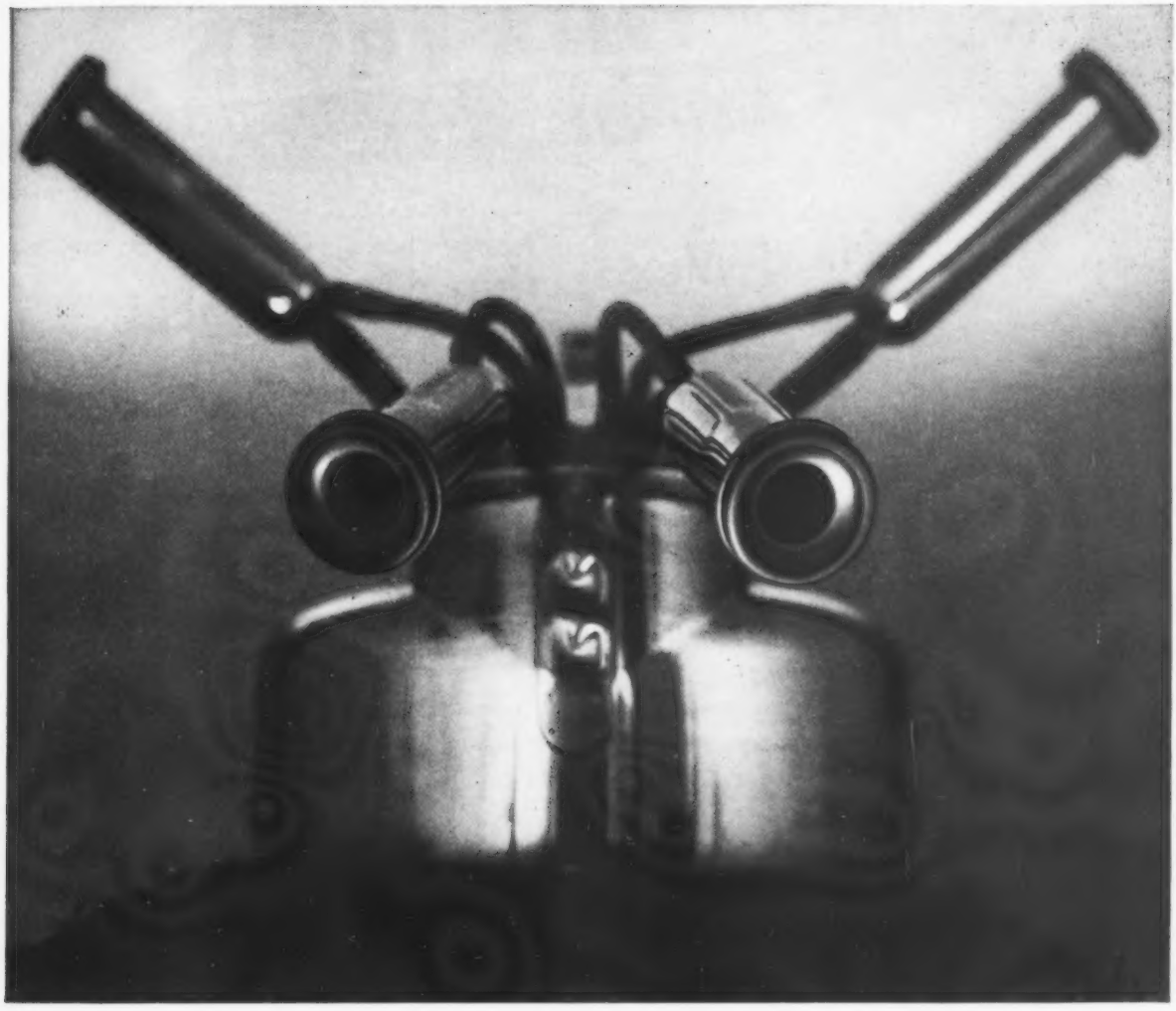

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The combination of HYAMINE 2389 and TRITON X-100 surfactant does an all-around job of making cleaning and sanitizing faster and easier . . . helps produce milk with low bacteria counts . . . is odorless, non-irritating and non-toxic in use concentrations . . . and is effective over a wide range of hard waters.

Write for complete information on how to use and formulate dairy detergent sanitizers with HYAMINE 2389 and TRITON X-100.

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WAX FACTS

NEWS OF INTEREST TO WAX USERS — DEVELOPMENTS IN THE FIELD OF SYNTHETICS

Special Issue — S/57-11

Hard-Waxes that "MAKE-SELL"

The Duroxon® waxes are low cost and "tailor-made" for the most exacting requirements of the chemical specialty industry. They are manufactured in the world's *ONLY* fully integrated Fischer-Tropsch synthesis plant. All Duroxons feature unique hardness, pale color, high melting point and superb gloss properties. They give your products a pleasing *"MAKE-SELL"* appearance.

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- ☐ **DUROXON R-11 Flakes:** A high melting gloss wax featuring outstanding solvent binding characteristics. It will form smooth, firm, paste wax in mineral spirits or turpentine even at low solids concentration. Paste waxes and shoe polishes manufactured with Duroxon R-11 have excellent resistance against high temperature sweating and have a minimum of shrinkage.
- ☐ **DUROXON H-111:** This wax is designed specifically for the manufacture of translucent, non-ionic emulsions and as a Carnauba replacement in carbon paper inks. Features high degree of anti-slip.

When you purchase Duroxon waxes, you know that you are buying from a plant that produces all of its own raw materials. It is the only plant in the world fully independent from outside supplies of Fischer-Tropsch wax. Technical service on the highest level is available free. If you would like to get acquainted with the Duroxon family of waxes, why not write us today. Your inquiry will be welcome and will receive top priority.

DUROXON WAX REFERENCE TABLE

DUROXON WAX	DROPPING POINT* °F (ASTM)	SOLIDIFICATION PT. °F (Rot. Therm.)	PENETRATION* (ASTM)	COLOR N.P.A.	ACID VALUE	SAPONIFICATION VALUE
C-60A	220	190/198	2.5	3 Max.	20/30	50/65
E-321	220	181/187	2.5	3 Max.	5/15	40/55
H-111	215	181/189	2.8	3 Max.	10/20	40/60
J-324	215	183/191	2.5	2.5 Max.	5/15	30/40
J-400	220	183/191	1.5	2 Max.	5/15	30/40
R-11 Flakes	215	194/203	1.5	1.5 Max.	20/30	20/30
R-21 Flakes	215	194/203	3.5	1.5 Max.	3/15	3/15

* Typical Test

Duroxon waxes are the exclusive products of Dura Commodities Corporation, 20 Vesey Street, New York, N. Y. Stocks are maintained in New York, Philadelphia, Detroit, Atlanta, Los Angeles, San Francisco and Mexico City for the convenience of customers. IN CANADA: Davies, Irwin, Ltd., Montreal and Toronto.

DURA COMMODITIES CORPORATION
20 VESEY STREET
NEW YORK 7, N. Y.

available. This would include materials and where used, volume, methods of buying and general discussion of plant problems."

Although some companies have brochures giving information about themselves and their products, Mr. Krech indicated, "the responsibility and advantage belong to the intelligent salesman who makes the buyer feel that . . . (the buyer) and his company are interesting and important."

"The salesman who asks for an appointment for his first call helps his cause many times and rarely, if ever, gets hurt by this approach," Mr. Krech observed. "Planned calls, he explained, "on an appointment basis give . . . (the salesman) time to tell . . . (his) story and allow the prospect time to put together material he needs for the discussion."

On the subject of the interview, Mr. Krech pointed out that "the outstanding characteristic that appeals to purchasing agents is a salesman's sincere interest in helping the buyer. Such a salesman is always trying to reduce . . . (the buyer's) costs or improve . . . (the buyer's) product. At the same time, he is solidifying his position as a supplier. A buyer recognizes that such a salesman's objective is *'not to make sales, but to make customers'*."

"This trait cannot be faked for it is immediately evident to the competent buyer," according to Mr. Krech.

The reason why a purchasing agent "appreciates and respects a man who has a sound knowledge of his company and its products" is that "a buyer knows a little about a lot of products," whereas the salesman should know a great deal about a few items," according to Mr. Krech. In fact, he averred that most of the p. a.'s know-how is based on information given him by salesmen.

"Naturally, the better informed salesman is able to get the purchasing agent's attention and hold his interest. We like this type of selling and respect the company that sends out well-qualified and trained salesmen."

Nor should the salesman's knowledge be limited to his own products and company, in Mr. Krech's opinion. "The salesman with a full size (tick) continually seeks know-how about our products, plants and problems," he said.

"Finally," in Mr. Krech's words, "the interview with a good salesman always produces some information and trade gossip of a non-confidential nature but of value to both parties. Both buyer and salesman should have their ears to the ground and add to each other's store of useful information. To most of us, this type of patter is important and preferred to the usual tripe about weather, health and baseball."

"We purchasing agents are quick to praise the salesman who is prompt in getting answers to our questions raised during the interview. Perhaps it involves delivery, routing, specifications, availability, price or special data requiring home office asistance. Whatever the problem, a prompt answer helps us to separate the men from the boys," Mr. Krech declared.

On call-backs, Mr. Krech advised the salesman to have some point of interest to discuss. "If you have nothing to review or suggest, don't call!", Mr. Krech warned.

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Panel members: Panel II, "Measuring and Reporting Territory Potential," l. to r.: James E. Shand, Barrett Division, Allied Chemical & Dye Corp., chairman; R. W. Eddy, Union Carbide Chemicals Co.; Thomas Capstick, Jr., Dix Chemical & Research, Inc., and James Day, Dow Chemical Co.
Members of Panel I, "Personal Development and Evaluation of Salesmen," James E. Harris, Westvaco Mineral Products Division; Ray Tower, Westvaco, chairman, Thomas H. Butler, Shell Chemical Corp., Bishop F. Smith, Jr., F. H. Ross & Co., and Thomas M. Welton, Oronite Chemical Co.
Panel III member, "What Does a Salesman Expect from and Contribute to a Sales Meeting," Carl W. Peterson, Grasselli Chemicals Department, E. I. du Pont de Nemours & Co.; Robert A. Gopel, Koppers Co., Harris Miller, Hooker Electrochemical Co., chairman, Raymond H. Nichols, J. F. Henry Chemical Co., and Edward N. Holback, Merck & Co.

To assure customers a product of highest possible quality, Hercules runs exhaustive tests on each batch of meta Delphene, outstanding new insect repellent, now produced at the Brunswick, Georgia, plant.

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The production of meta Delphene, Hercules Powder Company's diethyl m-toluamide, presented a challenging problem in the isolation of the product in the purity required of a cosmetic chemical. In solving this problem, Hercules drew on its long background in xylene oxidation to produce a material of uniformly high meta isomer content, free from color, odor, or irritating contaminants.

Now, in the first year of consumer use in the United States and Canada, enthusiastic reports confirm the results of the extensive laboratory and field tests. Meta Delphene provides excellent protection from insect pests, has shown no irritation on either intact or abraded skin.

Hercules anticipates that recent expansion of plant facilities at Brunswick, Georgia will assure an adequate supply of the same high quality meta Delphene for the 1958 season.

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83 per cent minimum meta isomer

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ND57-2

Launch Institute of Sanitation Management at

Sanitation Maintenance Show

THE formal launching of the Institute of Sanitation Management took place during and was one of the highlights of the second annual Sanitation Maintenance Show and Conference, held Oct. 14-16, at the Navy Pier, Chicago. The new organization is formed by a consolidation of the Industrial Sanitation Management Association and the National Association of Bakery Sanitarians. The Association of Food Industry Sanitarians is expected to part of the Institute of Sanitation Management before the end of the year. All three organizations were sponsors of the Sanitation Maintenance Show and Conference, which drew an estimated attendance of 1500.

The third annual show and conference will be held in Philadelphia in 1958. Although the place of the meeting has not been decided upon as yet, it is expected to be held again in October.

Active members of the new institute include anyone responsible for sanitation and building maintenance. There is also a membership class of sustaining members, made up of manufacturers of cleaning supplies and equipment.

The institute is composed of five divisions, each of which has a chairman, vice-chairman and secretary. J. Lloyd Barron, director of Sanitation, National Biscuit Co., New York, is president of ISM; Edwin S. Doyle, National Canners Association, is president-elect for 1958; Albert J. Burner, supervisor of cleaning standards, Port of New York Authority, is vice-president, and John Powell, president of

Left to right, top to bottom: David Peck, Bernard O'Connell and Glenn B. Othwell, West Chemical Products, Inc.; Roy Price, R. M. Hollingshead Corp., Joseph Rose, Standard Sanitary Products Co., and Ray Fry of Hollingshead; Jay Rodgen, Douglas Cox and M. L. Schnadig, Jr., all of O'Cedar Corp.; Jack Dieter, Lester Gray and Paul Stoehr, all of Vestal, Inc., with Kenneth Bell of Bankers Life Insurance Co.; George Brady, M. L. Morris and R. J. Hill of Procter & Gamble Co.; Thomas Berns and Milton Kuhn of Liquisan, Inc.; Clarence Weirich, C. B. Dolge Co., Ray Forrester and Carl Flaks of Poli-Skrub Corp.; William Gregg and Miss H. J. Vaughan, American Hygienic Corp.; George Watson and Walter E. Humphreys, Colgate-Palmolive Co.; E. H. Van Winkle, U. S. Rubber Co. with James Langman and Harold Seth of Horizon Industries, Inc.

Shopping the Wax Market with Willy Waxheart—

Looking for luster, buster?

polish manufacturer: You said it, Mac. Competition's tough and I need a wax my customers can take a shine to.

W. W.: That's easy! Go see the boys at Warwick. They're whizzes with waxes; they can give a gloss to everything from floors to furniture. What's more, polishes made with Warwick won't pick up dirt.

polish manufacturer: What about scuff resistance...hardness... slip resistance...compatibility...?

W. W.: Warwick's always your best bet; they're the world's largest producer of specialty waxes. Write this at the top of your shopping list:

when wax is the heart of your product...specify Warwick

Warwick Wax offers the broadest selection in the wax field: samples, suggested formulations and technical service are available to you without obligation. Prompt delivery is assured from stock and service centers in 33 principal cities. If your problem is wax—contact Warwick today!

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HORN (paints, maintenance and construction materials, industrial coatings) • **WARWICK** (textile and industrial chemicals) • **WARWICK WAX** (refiners of specialty waxes) • **RUTHERFORD** (lithographic equipment) • **SUN SUPPLY** (lithographic supplies) • **GENERAL PRINTING INK** (Sigmund Ullman • Fuchs & Lang • Eagle • American • Kelly • Chemical Color & Supply Inks • **MORRILL** (news inks) • **ELECTRO-TECHNICAL PRODUCTS** (coatings & plastics) • **PIGMENTS DIVISION** (pigments for paints, plastics, printing inks of all kinds) • **OVERSEAS DIVISION** (export) • **A. C. HORN COMPANY, LIMITED** (Canada) • **GENERAL PRINTING INK CORPORATION OF CANADA, LIMITED** • **FUCHS & LANG de MEXICO, S. A. de C. V.**

now—formulate a floor cleaner
6 TIMES THE VISCOSITY
and outsell competition!
key ONYX chemicals give highest practical viscosity at no more cost than your present formulation!
500 cps. — VISCOSITY OF A LEADING FLOOR CLEANER.
Shape of bubble and its quick rise to top of graduate indicates its low viscosity. 500 cps. is the average of several leading cleaners.
3,000 cps. VISCOSITY! Shape of bubble demonstrates high viscosity of the Onyx formulation.
Your own salesman can make a similar test with sample bottles filled with your formula and another, and increase their sales!
100
90
80
70
60
50
40
30
20
10

out the coupon below, or write us for your sample of this Onyx floor cleaner formulation. Test it yourself. See how its tremendous viscosity is a feature your salesmen can use to demonstrate more sales. Your customers look for high viscosity. Here it is, and at no more cost than your present formulation.

PLUS EVERY OTHER FEATURE YOU COULD ASK FOR

With the key Onyx chemicals, this floor cleaner **1**—Has a viscosity of 3,000 cps. as against the average of 500 cps for other cleaners. —Can be formulated in cold water—dilutes instantly in hard water, is crystal clear without filtration. **3**—is a balanced formulation for all kinds of soils. **4**—can be readily colored. **5**—Offers controlled foam. **6**—Leaves no dirt or soapy residue. **7**—Is very economical in use solutions—even for stripping wax. **8**—Has a long shelf life and is highly stable.

ONYX OIL & CHEMICAL COMPANY, Industrial Division, 190 Warren Street, Jersey City, N.J.

nen:
like to test a sample of your floor cleaner formula- eaturing key Onyx chemicals. Send the sample to:

Title

ny Address

State

ONYX
CHEMICALS

Ask the Man from Onyx

KILL the odor

in insecticides
and other strong
smelling chemical
specialities with

MALASCENT

Here is a new and amazingly effective reodorant for insecticide formulas. It quickly, efficiently and economically covers and neutralizes the unpleasant odors so often present in products used for pest control. Only ¼ ounce is necessary to reodorize a full gallon of insecticide formula—either oil or water based. Why not order a trial pound for your own tests. The low, low price is only $3.00 per pound.

Reodorize 1 gallon of insecticide for only 4½ cents

AROMATIC PRODUCTS Incorporated 235 Fourth Ave., New York 3

CHICAGO • DALLAS • MEMPHIS • PITTSBURGH • LOS ANGELES • BOSTON

Powell Magazines, Inc., is interim secretary-treasurer, an appointive office. Eventually, the organization plans to hire a full-time secretary.

Directors include Prescott R. Lloyd, California and Hawaii Sugar Refining Corp., San Francisco, and former president of the Association of Food Industry Sanitarians; Sidney Brierley, Eastman Kodak Co., Rochester, N.Y., former president, Industrial Sanitation Management Association, and Paul Laughlin, National Biscuit Co., New York, and George Wagner, Pillsbury Mills, Inc., Minneapolis.

The five divisions and their officers are:

Food Processing: Charles Clark, General Foods Corp., chairman; Lloyd Fox, Exchange Orange Products Co., vice-chairman and Dominick Frank, Gamble-Robinson Co., secretary. **Mill and Bakery:** Parker Pierce, Arnold Baking Co., chairman; Julian Cagle, Helms Bakeries, vice-chairman, Lois Cole, Quality Bakers of America, secretary. **Buildings:** Edward Hupert, U. S. Post Office Department, chairman; George McIntosh, Long Island Lighting Co., vice-chairman, Earle Powers, Strowbridge & Clothier, secretary. **Institutions:** J. A. Fassett, American Hotel Association, chairman; Ruth Schoener, Roswell Memorial Institute, vice-chairman, Sam H. Records, Laurel Special School, secretary. **Industrial:** John Donahue, General Motors Corp., chairman; Charles Farrell, Rohr Aircraft Corp., vice-chairman, Franklin J. Merwin, Electric Boat Division, General Dynamics Corp., secretary.

★

Harry Ahles Dies

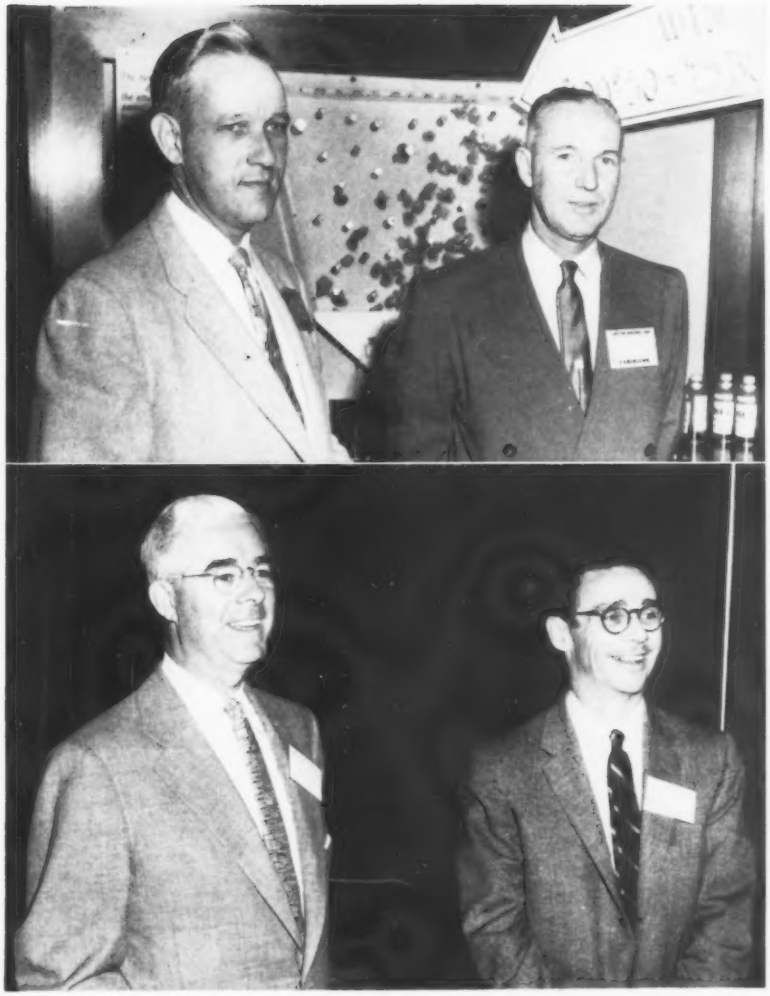
Harry J. Ahles, Chicago manufacturers' agent, who represented such firms as Ungerer & Co., New York, Stillwell & Gladding, Inc., New York, and John Powell & Co., New York, died on his 78th birthday, Oct. 20. He is survived by his widow, Martha, and a daughter Mrs. Nedra Larsen.

★

Two New Polish Resins

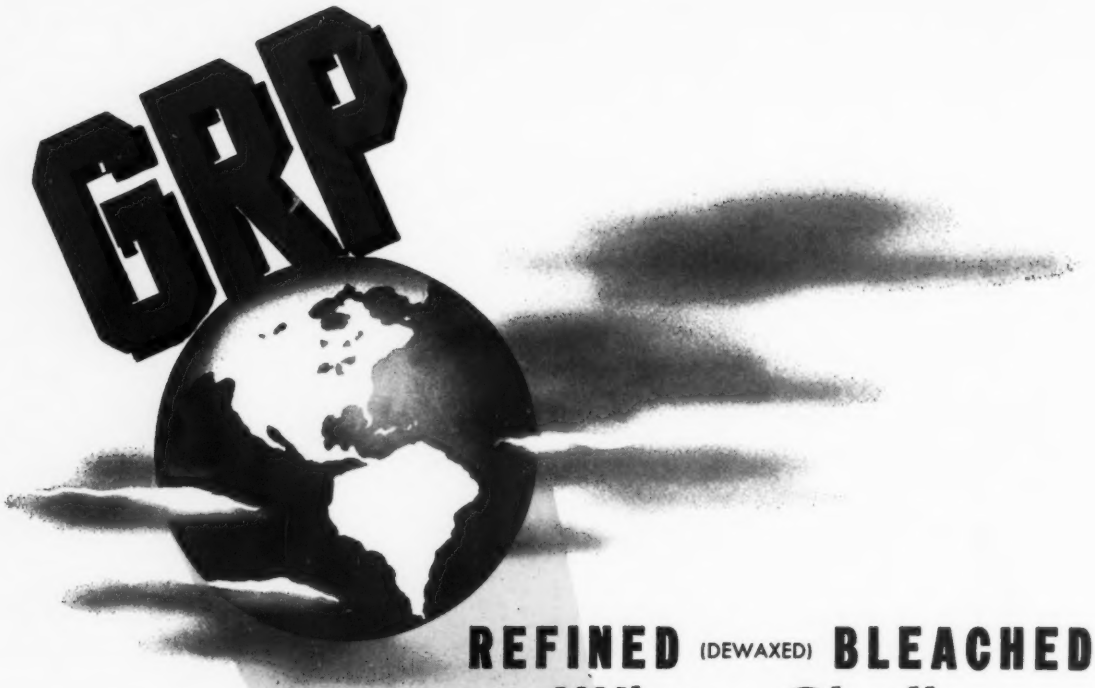
Two new alkali soluble resins for use in floor polish formulations were announced recently by the Emulsion Division of Reichhold Chemicals, Inc., White Plains, N. Y. Nearly water white, "Waterez 1550" and "1551" deposit films from ammonia solution which are claimed to be water spot resistant and to undergo no chemical changes while aging on the floor. Their removeability is therefore not affected by age. The two resins are said to fulfill a large range of requirements for compatibility with natural and synthetic wax emulsions, as well as with polymer latices.

Samples and suggested formulations, as well as detailed properties information (technical bulletin SC-25) are available from the manufacturer.



Left to right, top: R. S. Smith and Edward Schacherer of J. I. Holcomb Manufacturing Co. Lower photo is of Glenn Doerr and George J. Flanagan of Federal Varnish Division.

Left to right: John Reed, R. C. Anderson and Bruce Bartell, all of International Chemical Co.; T. J. Martin of S. C. Johnson & Son, Inc.; W. A. Tucker, Moellering Supply Co., and Edward J. Grant, Johnson; I. Steig, C. O. Combs, Clarence L. Weirich and Perry Holderby, all of C. B. Dolge Co.



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White Shellac

Preferred by Non-rubbing Floor Polish brand name manufacturers

Because of Uniform Quality — Quick and Complete Dissolving and Superior Leveling Properties — Long Shelf Life.

Plus High Gloss — Tough Scuff Resistance — Maximum Anti-Slip Qualities

STANDARDIZE WITH GRP SHELLAC

GILLESPIE-ROGERS-PYATT CO., INC.

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Plants: Jersey City, New Jersey

Sales Representatives & Warehouse Stocks in Principal Cities in United States & Canada

"Lestoil's" New Home

(*From Page 40*)

television commercials were tried and "Lestoil" sales rose sharply. Incidentally, an advertising agency, Jackson Associates, was created in 1955 to take charge of all future "Lestoil" advertising and promotional activities. Jackson makes its headquarters at the new Adell offices.

Adell's new quarters in the Industrial Park in Springdale section of Holyoke are housed in a one story brick faced building. Company offices stretch across the front of the building, at one end of which is a large room used as an auditorium and employees' lounge. Directly behind the employees' auditorium and lounge is a large warehouse area, featuring 20 feet high ceilings. Adjacent to the warehouse area, and possibly one-third again as large, is the manufacturing, raw materials and container storage and filling section. The forward portion of this area, is used for storage of containers. Along the outside of the building parallel to this area is a long receiving dock and Boston and Albany Railroad siding which runs back the depth of the building. Both box cars of chemical raw materials and tank cars of pine oil are handled on this siding. On the other side of the storage area, about in the center of the building are the three high speed filling lines.

Finished "Lestoil" ready for packaging is stored in six, 15,000 gallon tanks at the rear of the building, directly behind the storage area. Just across the floor from the finished product storage tanks are six of the so-called "jet propulsion" type mixing tanks, which are located along the rear wall of the manufacturing area. On the other side of the wall is a battery of six 20,000 gallon and two smaller liquid storage tanks, which are filled from tank cars on the siding just outside the building.

Small package sizes in which "Lestoil" is available include, left to right, one-half and one gallon cans, quart and pint bottles and, more recently, as a waterless hand cleaner. "Lestoil" is also packed in drum size ranging up to 55 gallons for industrial and institutional uses.

Directly opposite storage and mixing tanks, and in an alcove formed by the rear wall of the warehouse and the side wall of the manufacturing area is a large truck bay capable of accommodating four large trailer trucks.

There are two sizable storage tanks outside the plant. These are at the rear left of the plant, adjacent to the rail siding. Additional storage facilities will be erected in this area.

Metered pumping devices are used throughout to bring liquid raw materials into the plant via raw material storage, to mixing tanks and again into finished product storage and thence to filling lines. All lines are color coded.

Each of the three filling lines consume two railroad cars of bottles per day, or a total of six carloads daily for the plant. Cartons filled with empty quart and pint bottles arriving by rail are loaded on to pallets and go to the filling lines. Empty bottles are flipped onto the unscrambler and the empty cartons are placed on an overhead conveyor. Cartons are carried to the end of the line and meet the filled bottles at the automatic case filler.

Meanwhile, the bottles leave the unscrambler in single file and head for the labeler. From the labeling machine they continued their journey to the 30-head filling unit and then to the capper which handles 250 bottles per minute. Bottles are then fed into the packer and, in the case of pints, slip down through steel "fingers", 24 at a time, into the carton from which they were separated at the other end of the line. Carton flaps are glued and pressure sealed automatically. They are then ready for warehouse or shipment.

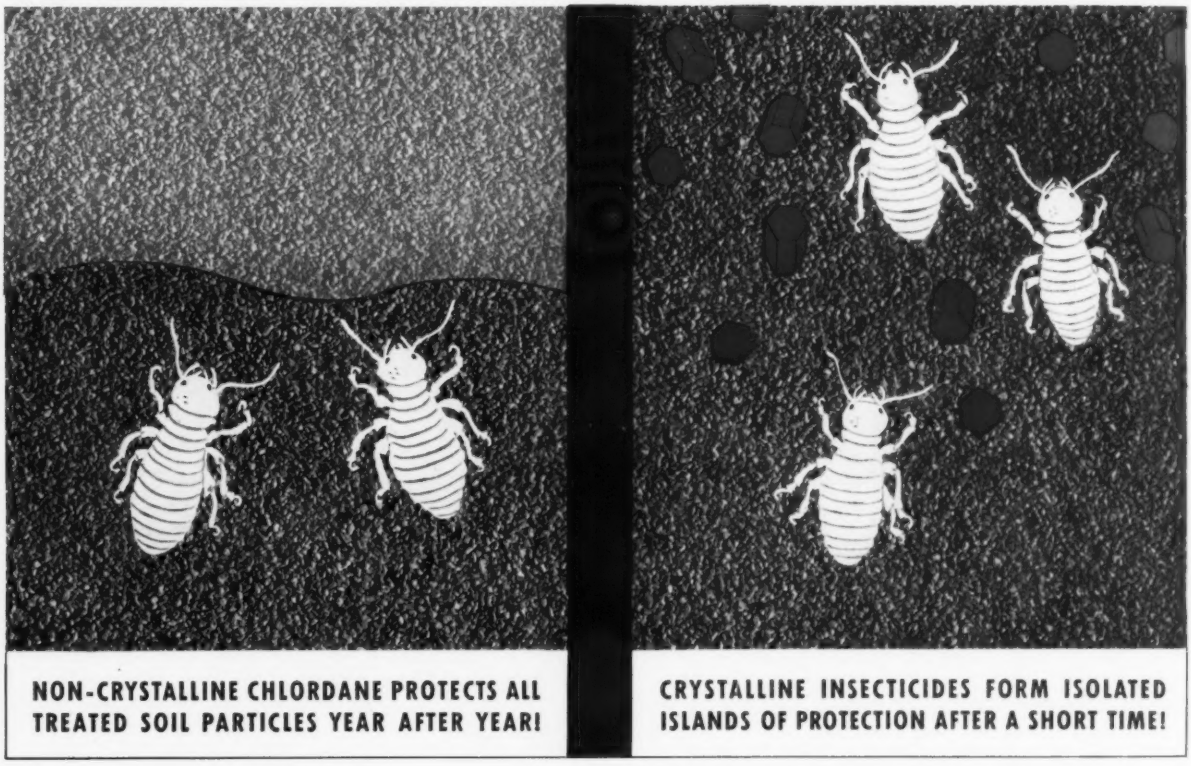
Of the three filling lines now operated by Adell, two handle pint size bottles, the third handles quarts. A fourth filling line is now on order and is expected to be installed in the near future.

Filling of drums is a separate hand operation. However, hand cleaner and gallon and half gallon cans are filled semi-automatically. Gallon and half gallon cans are filled on a six-spout unit made by Scientific Filter Co., New York. Standard-Knapp Co. supplies the carton filling and sealing machines and filling, labeling and capping units are by Pneumatic Scale Corp., Quincy, Mass.

Although Adell's new home provides three times as much space as its former plant in the Feinstein building on Race and Appleton Sts. in Holyoke, it still doesn't have enough plant. Even while celebrating the opening of its new plant,

INSECT CONTROL THAT LASTS!

NON-CRYSTALLINE CHLORDANE



NON-CRYSTALLINE CHLORDANE PROTECTS ALL TREATED SOIL PARTICLES YEAR AFTER YEAR!

CRYSTALLINE INSECTICIDES FORM ISOLATED ISLANDS OF PROTECTION AFTER A SHORT TIME!

CHLORDANE IS EFFECTIVE LONGER!

Chlordane and crystalline insecticides are free-flowing liquids when they are applied, because they are all diluted in solvents. As time passes, however, the solvents vaporize. Only the technical material remains in the soil. Immediately, the protection afforded by crystalline insecticides begins to shrink. Chlordane remains uniformly distributed throughout the treated area.

CRYSTALLINE INSECTICIDES GIVE INSECTS "SAFE PASSAGE!"

After solvents vaporize, crystalline technical material migrates out of many soil particles, and forms isolated crystals. This leaves large unprotected areas in the soil, through which insects can safely pass. If insects do brush against the hard-surfaced crystals, the amount of insecticide that adheres to them may not be lethal.

CHLORDANE FORMS AN UNBROKEN BARRIER AGAINST INSECTS!

Chlordane does not crystallize! After solvents vaporize, Chlordane remains liquid, and becomes more sticky, more viscous, and more concentrated. It adheres to every soil particle that is treated, and every insect that passes through Chlordane treated soil is coated with insecticide. With every movement, insects pick up more insecticide.

GUARD YOUR REPUTATION WITH CHLORDANE

These facts prove once again that Chlordane is the insecticide you can trust for lasting control of soil insects, turf insects, termites, and many other household and outdoor pests! Only Chlordane is: non-crystalline, alkali stable, free of offensive odor, safe and easy to use, not harmful to vegetation, and backed by a ten year record of proven effectiveness!

BE SAFE! BE SURE! USE NON-CRYSTALLINE CHLORDANE FOR LASTING INSECT CONTROL!

VELSICOL

VELSICOL CHEMICAL CORPORATION

330 East Grand Avenue, Chicago 11, Ill.

Adell revealed its plans to add substantially to its present plant.

Possibly the fact that "Lestoil", according to Adell, leads in sales of all-purpose detergents in the New England states, is second in the metropolitan New York City area and first in all other areas as far south as northern West Virginia and as far west as Ohio, may account for this new plant need.

Summarizing the company's advertising and marketing philosophy, Isaac L. Eskenasy, Adell's marketing vice-president, recently told the Association of National Advertisers meeting in Atlantic City that "as far as our product 'Lestoil' is concerned, all markets are pretty much the same except for size. People are just people everywhere and still buy well advertised good products." He said experience over the years has enabled the company to develop this as a "formula" for moving into new markets.

Other Adell executives and key personnel who are contributing to "Lestoil's" success include: William J. Massey, sales manager, and one-time Lever sales executive; Horace M. Culpon, chief accountant; Aaron L. Kingsberg, comptroller; Dr. Edwin I. Stoltz, director of research and development; R. S. Callahan, manager of the traffic department, and Mrs. I. L. Eskanasy, in charge of the payroll and personnel department.

As with all success stories, that of Adell is not without its tragic side. Thus, on last December 28, the death of Seymour I. Barowsky, 39-year-old son of the company's president, removed some of the luster from the joy of the success of the enterprise. Seymour Barowsky was vice-president in charge of sales of Adell at the time of his death. To his memory is dedicated the book given to all visitors to the plant telling the story of "Lestoil" in words and pictures. As the foreword points out: "Seymour's association with Adell Chemical greatly advanced the success and and growth of "Lestoil" liquid detergents in both the industrial and retail fields. . . . "

AOCS Meets

(*From Page 50*)

were analogous to those obtained with the dishes. Similar results are presented for cloth when tagged bacteria or inert colloidal matter is used on grease stained and grease free cotton fabrics.

This report is one of a series on "Cleanability of Surfaces" financed through a grant from the National Sanitation Foundation.

Syndet Bars from Tallow

A PAPER dealing with "Detergent Bars from Salts of a-Sulfonated Tallow Acids" was presented by J. K. Weil, A. J. Stirton, E. W. Maurer, and W. E. Palm, Eastern Regional Research Laboratory, U. S. Department of Agriculture, Philadelphia. The a-sulfonated saturated acids of tallow (a-sulfopalmitic and a-sulfostearic acid) RCH (SO_3H) CO_2H, are inexpensive and versatile chemical intermediates. The presence of the strongly acid sulfonic and the weakly acid carboxyl groups permits formation of a variety of acid, neutral and mixed salts. Wide differences in solubility and surface activity of the various salts suggest their application where controlled solubility is required, such as use in synthetic detergent bars.

The study deals with experimental detergent bars based entirely on selected salts of a-sulfonated tallow acids and containing nothing but surface active material. The sodium and potassium salts alone did not yield satisfactory detergent bars. Three general types of combinations were found to have generally desirable characteristics. The most feasible of these three types contains a major amount of the acid sodium or acid ammonium salt (RCH (SO_3Na) CO_2H or RCH (SO_3NH_4) CO_2H) with the carboxyl group partially neutralized by the addition of lesser amounts of ammonia or amines during the milling operation. Amines considered for the purpose were mono, di, and tri-ethanolamine, isopropanolamine, and ethylamine. Presumably mixed salts such as RCH (SO_3 Na) CO_2NH (C_2H_4OH)$_3$ are formed in the process.

The authors then describe preparation of the salts. Generally the bars were made on a laboratory scale by means of a two mill and a hydraulic press. But use of a small scale plodder and stamping machine showed that the compositions are adaptable to conventional soap bar forming equipment.

Formulations can be balanced to exhibit hardness and solubility approaching that of toilet soap and detergent bars currently on the market. Thick copious lather of good lasting properties is formed. Properties of the bars can be controlled by choice of the amine, the extent of the partial neutralization, and the water content.

Representative experimental detergent bars with good general characteristics had the following compositions, expressed in mole per cent, on an anhydrous basis: (1) 72 monsodium, 20 sodium ammonium, and 8 sodium triethanolammonium salts; (2) 85 mono-ammonium and 15 ammonium triethanolammonium salts.

Cationic Softeners

"FABRIC Treatment with Cationic Softeners" was described by W. M. Linfield, J. C. Sherrill, G. A. Davis, and R. M. Raschke, Armour & Co., Chicago. The study was confined to four tallow derived quaternary ammonium compounds, including quaternary ammonium chlorides and methosulfates of a fatty amine derivative and a corresponding imidazoline derivative. These compounds exhibit marked substantivity for cellulosic fibers. The substantivity was determined quantitatively and rates of exhaustion were established. Exhaustion rates rise with increased pH as well as with increased temperature. The softeners should be applied at a pH of about five and a temperature of 70°F. at a concentration of 0.1 per cent on the weight of the fabric.

Polishes made with EPOLENE "E" lead a tough life

...and love it

More and more formulators are turning to Epolene "E" for polishes that endure abuse but don't show it.

Epolene "E" is a low-molecular weight emulsifiable polyethylene wax. It is hard, tough, durable and compatible with most resins and waxes.

Incorporated into water-emulsion floor polishes, Epolene provides exceptional resistance to scuffing, dirt pick-up and water spotting, plus a natural "built-in" slip resistance. Epolene-based polishes exhibit good flow-out properties and high gloss...a gloss that actually increases following a normal period of wear and rebuffing. These polishes do not darken or discolor wood, ceramic or resilient flooring materials.

Epolene is manufactured to close specifications to insure uniform product quality and superior performance. Synthetic in origin, Epolene is available in a steady supply and at a stable price, offering economies not possible with costlier imported waxes such as carnauba. Its consistent high quality means you can standardize your formulations and procedures with complete confidence in batch-to-batch uniformity.

Epolene comes in small rice-size pellets that pour easily... melt quickly... blend readily.

Epolene is available also in a non-emulsifiable type—Epolene "N"—for use in paste polishes.

Ask your Eastman representative to show you how to make profitable use of Epolene's many advantages in your polishes. For samples and typical polish formulations, write today to: EASTMAN CHEMICAL PRODUCTS, INC., a subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE.

Epolene "E" means

- high scuff resistance
- low dirt pick-up
- excellent slip resistance

Epolene

EASTMAN POLYETHYLENE WAXES

SALES OFFICES: **Eastman Chemical Products, Inc.,** Kingsport, Tennessee; New York City; Framingham, Mass.; Cincinnati; Cleveland; Chicago; St. Louis; Houston.
West Coast: Wilson Meyer Co., San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Evenness of application appears to be related to the rate of exhaustion. Evenness can be demonstrated visually by a bromphenol blue staining technique.

Concentration of the softener on the fabric has an effect upon the rate of water absorption by the fabric. Absorption rate appears to be a logarithmic function of softener concentration on the fabric. However, absorption rate is not noticeably impaired at a concentration below 0.2 per cent, which is the upper limit used in the textile maintenance field. Surprisingly, the presence of large amounts of softener on the fabric does not influence its absorptive capacity.

Antistatic properties of three cationic agents on several synthetic fibers were studied by a dynamic friction procedure. The rates of charge build up and leak off were found to depend upon the concentration of softener on the fabric. In general the quaternary ammonium sulfates appear to be somewhat more effective then the corresponding chlorides. In addition, the antistatic properties vary with the chemical structure of the cation and are somewhat specific for individual fabrics.

Analytical Advances

"A NEW Titrimetric Analysis for Ethylene Oxide Condensates" was presented in a paper by Lloyd E. Weeks, John T. Lewis, and Martin E. Ginn, Monsanto Chemical Co., St. Louis, Mo. A search was made for suitable methods for analyzing ethylene oxide condensates. These studies led to the development of a rapid empirical titrimetric method for measuring nonionic hydrophobicity based on a water titration of a condensate dissolved in dimethylformamide (DMF) and benzene. The end point is identified by solution turbidity. The volume of water consumed is compared to titration calibrations for known nonionics. Rapid, accurate and reproducible, the method should be useful for analysis of adducts in plant quality control and also for nonionics with known hydrophobes. The method is applicable to ethers based EO condensates, i.e. those from fatty alcohols and alkyl phenols. Ethylene oxide in esters can be calculated from their saponification values.

The morning session, Oct. 1, opened with a paper by Robert Schumacher, Hilton-Davis Chemical Co., entitled: "Measurement and Study of the Fluorescence Spectra of Optical Brighteners." Described is an attachment for adapting the Beckman DU spectrophotometer or the Warren Spectracord recording spectrophotometer for measurement of the fluorescence spectra of optical brighteners. The attachment is installed in a matter of seconds by interchanging it with the tungsten or hydrogen lamp of either instrument. A mercury arc lamp with filter irradiates the sample with the 366 mmu line and the emitted fluorescence is collimated by a mirror into the monochromator and is measured spectrally by the usual single-beam method.

Using this apparatus, studies have been made of the effect of substitution on 4,4'-Bis (benzimidazol-2-yl) stilbene. Substitution on the benzene ring causes bathochromic shifts and decreases in intensity. Substitution on the nitrogen atom does not appreciably change the shape of the curve although the molar intensity is usually decreased dependent upon the substituent structure. It is significant that the N-substitution does cause, on the other hand, hypsochromic shifts and change in curve shape in the ultra-violet absorption. Ion formation at the imidazole ring in basic medium results in a decided bathochromic shift in both fluorescence and in ultra-violet absorption. This can be used to determine the number of imidazole rings alkylated as alkylation removes the capability of the imidazole to ionize.

A method is shown for correcting the curves relative to equal spectral energy in order to take care of variations in the spectral response of the photomultiplier tube, in band width, and in transmission through the optical system. From the corrected curve, it is then possible to calculate tristimulus values and evaluate the brighteners colorimetrically.

Soap Color Measurement

"NEW Scales and Instrumentation for Color Measurement," by R. S. Hunter, Hunter Associates Laboratory, Falls Church, Va. covered a color and color difference meter incorporating three photodetectors, each covered with a separate tristimulus filter, that receive light from the specimen at the same time. From the photosignals, and particularly from the differences between them, the instrument measures for each color one value corresponding to luminous reflectance, another corresponding to the redness or greenness and a third determining the yellowness or blueness.

At the request of Procter & Gamble Co. the original instrument has been improved and developed primarily for use in controlling colors of bar soaps, soap powders, and for detergency and color fastness evaluations.

N. V. Lovegren, W. A. Guice, and R. O. Feuge, Southern Regional Research Laboratories, New Orleans, La., discussed "An Instrument for Measuring the Hardness of Fats and Waxes." The new instrument and technique devised by the authors consist essentially of an adaptation of the Brinell hardness tester used for metals and alloys.

A paper entitled "Some Long-Chain Acids in the Solid State" was read by Erik von Sydow, University of Upsala, Sweden. He reported on structural investigations on long chain fatty acids by X ray, infrared, and mass-spectrometric methods. Normal fatty acids crstallize in six different polymorphic forms, three for odd numbered and three for even numbered acids. Their structures were discussed as well as the conditions for their formation.

The series of X-DL-methyl octadecanoic acids, with X assum-

(*Turn to Page 97*)

We'll gladly drop in . . .

Just because more gallons of wax emulsion are made with Durez Phenolic Resins than any other—than *all* others in fact—is no reason to sit back as we see it. Quite the opposite. We like to drop in fast when customers want to see us. Our warehousing and delivery setup is geared to match.

Along the same lines we find that making our principal raw materials helps us protect quality and low cost for users of our resins... and the uniformity of our product helps *them* avoid production problems.

If you're not a Durez resin user already, try us out. For samples, technical data, or help on questions involving phenolic resins, ring us at North Tonawanda or any district office —New York, Philadelphia, Detroit, Chicago, Los Angeles.

WAX EMULSION RESINS

HIGH MELT Durez 219 and 225. Emulsifiable and compatible with vegetable, mineral, and synthetic waxes.

LOW MELT Durez 13560 and 14140 have a melting point (about 60°C.) suitable for processing in steam-jacketed kettles.

LEVELING Excellent lay-down is obtained with Durez 15546 ammonia-soluble resin in blends made with polyethylene, polymers, and modified waxes. The resin imparts hardness, gloss, stability, and water resistance to the finished product.

DUREZ®

Phenolic Resins that Fit the Job

DUREZ PLASTICS DIVISION

HOOKER ELECTROCHEMICAL COMPANY

411 WALCK ROAD, NORTH TONAWANDA, N. Y.

HOOKER CHEMICALS PLASTICS

RECOGNIZE HER NOSE

The importance of Mrs. Buyer's nose can't be underestimated in considering the selling factors involved in the successful merchandising of your product.

- Her nose influences the first purchase in the store.
- Her nose influences product judgment through use.
- Her nose influences brand loyalty.
- Her nose influences repeat purchases.

. . . give your product a forceful selling factor through the use of knowingly effective odor treatment.

VAN AMERINGEN-HAEBLER, INC.

521 WEST 57th STREET, NEW YORK 19, N. Y.

LOOK AT THESE VERSATILE OIL-SOLUBLE SURFACE-ACTIVE AGENTS

Every day the ALKATERGES® are being utilized in new industrial applications. A close look at these versatile surface-active agents may suggest additional ways they can be profitably used to help you solve a particular problem. Samples of ALKATERGES C, A, E and T are available, as well as helpful technical data sheets. Write for yours today.

LOOK INTO THESE USES

EMULSION STABILIZERS In oil-in-water emulsions, ALKATERGES and their soaps are effective as emulsion stabilizers or auxiliary emulsifying agents. They aid in the dispersion of insoluble calcium and magnesium soaps.

PENETRANTS Solutions of the salts of ALKATERGES are useful as penetrants in textile and paper manufacturing. Reported to reduce resin consumption in waterproofing paper.

PIGMENT-GRINDING ASSISTANTS; PIGMENT DISPERSANTS ALKATERGES convert stiff pigment-oil mixtures into fluid, easy-to-grind compositions. Also recommended in resin-carbon black formulations.

CORROSION PREVENTION By neutralizing perspiration acids, the ALKATERGES protect metals subject to corrosion through handling. Industrial users confirm the exceptional qualities of Alkaterge-T as an oil-soluble corrosion inhibitor. Manufacturers of rust preventative oils, lubricants, cutting oils, corrosion resistant greases and extruding oils will find evaluation profitable.

DISPERSING AGENTS ALKATERGES are recommended as dispersants for flattening agents in varnishes and enamels and for any finely-divided solid in nonpolar liquids.

ACID ACCEPTORS Since most of their salts are somewhat oil soluble, ALKATERGES can be used to tie up acidity from deterioration of oils or additives. Useful also as perspiration acid neutralizers in corrosion-preventive oils.

ANTI-FOAMING AGENTS Used alone or in carriers, ALKATERGES control certain foams encountered in processing organic materials such as manufacturing antibiotics. They do not turn rancid and, in the concentration normally used, they are nontoxic to most antibiotic microorganisms. Tests indicate that Alkaterge-A is useful as an anti-foam agent in non-aqueous systems.

Write for complete information and samples.

DISCOVER THE NITROPARAFFINS!

INDUSTRIAL CHEMICALS DEPARTMENT

COMMERCIAL SOLVENTS CORPORATION

260 MADISON AVE., NEW YORK 16, N. Y.

Atlanta • Boston • Chicago • Cincinnati • Cleveland • Detroit • Houston • Indianapolis • Kansas City
Los Angeles • Louisville • Memphis • Milwaukee • Minneapolis • Newark • New Orleans • New York
Pittsburgh • St. Louis • San Francisco • IN MEXICO: Comsolmex, S. A., Mexico 11, D. F.

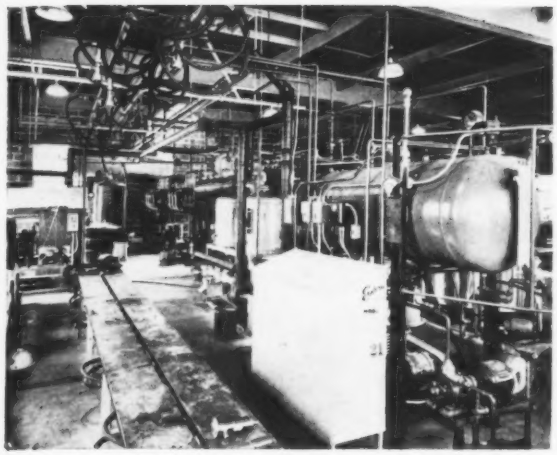


Figure 7. Modern dehydrating equipment for drying concentrates

Figure 8. New research and development laboratory

ing all positions from 2 to 17, is being investigated. The effect of the branching group on the arrangement of the molecules is specially studied.

Up to now one optically active long-chain has been structure determined: (−) -2-methyl-2-ethyl-eicosanoic acid. The chains pack themselves in a way never found before and the hydrogen bonds do not bind the molecules two and two as usual, but in infinite chains.

"The Behavior of Distilled Monoglycerides in the Presence of Water" was described in a paper by G. Y. Brokaw and W. C. Lyman, Disillation Products Industries, Rochester, N. Y. A gel is formed when concentrated monoglycerides such as distilled products are heated to about their melting point with water. The exact temperature at which gelation occurs depends upon molecular weight of the fatty acid (monolaurin does not gel but monopalmitin does) and upon the purity of the monoglyceride.

Additives can prevent gelation. Triglycerides are about twice as effective as diglycerides, addition of 15 to 20 per cent of the first and 30 to 30 per cent of the second being required.

Aeorosol Insecticides

(*From Page* 67)

upon for aerosol quality control. But the advent of new materials necessitates further research in the field.

We are still receiving inquiries from people who are entering the pressure packaging field. They are the same questions which we have been answering for the past ten years. In addition we are receiving requests for highly technical information. Although we are able to keep up with a certain amount of this type of work, research by fillers and propellant manufacturers themselves is a growing necessity. For instance, where insect resistance has become a problem, new and more effective insecticide combinations have to be developed and used. If more toxic ingredients are present in an aerosol formulation, particle size must be controlled more stringently and other toxicological considerations may enter the picture.

The need for technical knowledge is being recognized by formulators and fillers and is being met by installation of laboratories as part of the filling plants. While this course may seem expensive at first, it will pay for itself by eliminating non-competitive and poor products before they ever reach the market.

Annual production of pressure packaged insecticides has increased more than 60 times in the past decade. For continued growth constant improvement of product quality must be sought.

The low pressure aerosol must be a tailor made product, specifically designed for specific applications. We stipulated this aim in 1947; it is still true today and will be so in the future.

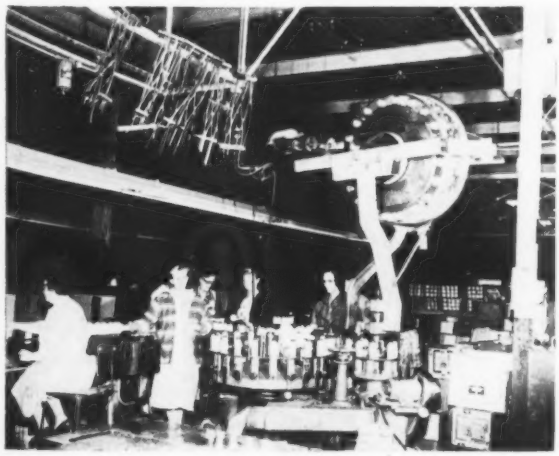


Figure 9.
Modern filling line

Quality Tested

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#65 *Refined white **shellac***

Leading manufacturers of water emulsion waxes and polishes have adopted Mantrose shellac because of its high quality, uniformity and stability.

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Arlington 74, Mass.

Palmer Supplies Co.
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Cincinnati 2, Ohio

E. M. Walls Company
San Francisco, Cal.

Brake Fluid Manufacture

(*From Page* 64)

Good commercial practice certainly specifies filtering brake fluid, because purity and freedom from foreign matter is imperative. Any small particles of dirt can plug the orifices of the brake system and cause brake failure. Filtering is not difficult because these materials should be quite clean and clear when they go into the fluid. A good plate press, cone-type filter or centrifugal-type filter will suffice.

We are now ready to fill the brake fluid into cans. First, we have to establish some policy on filling accuracy. Brake fluids are rather expensive materials, for this reason accuracy in filling is essential. However, our primary consideration is to be certain that the contents of the can are not less than the amount shown on the label. In order to do this, it is necessary to establish a reasonable overfill and a tolerance around this overfill. An overfill of one per cent, plus or minus .5 per cent, is a reasonable tolerance to try to hold in our filling operation.

Controlling filling by weight may be considered better than filling by volume inasmuch as weight is not affected by the volume-temperature relationship. Once a filling weight is established, it is not changed by altering ambient temperatures. Volume values must be adjusted to fluid temperature changes.

How are we going to check for filling accuracy? This can be done quite simply by hand inspection at determined intervals, or by inspection equipment which automatically will kick off an underfilled or overfilled container.

The common filling machines in use today are the rotary gravity feed machines, the rotary vacuum machines, and the in-line vacuum machines. When we are working with the production requirements mentioned earlier, it is necessary to fill brake fluid cans rapidly. Modern machines fill 12-ounce or pint size cans at rates of 25,000 to 50,000 a day.

Brake fluid cans are mainly of screw cap closure type and include a tamper-proof seal. Screw caps can be put on quickly with capping machines. Following this, cans are packed into cartons. The packaged fluid is then warehoused and held for final laboratory approval before shipment.

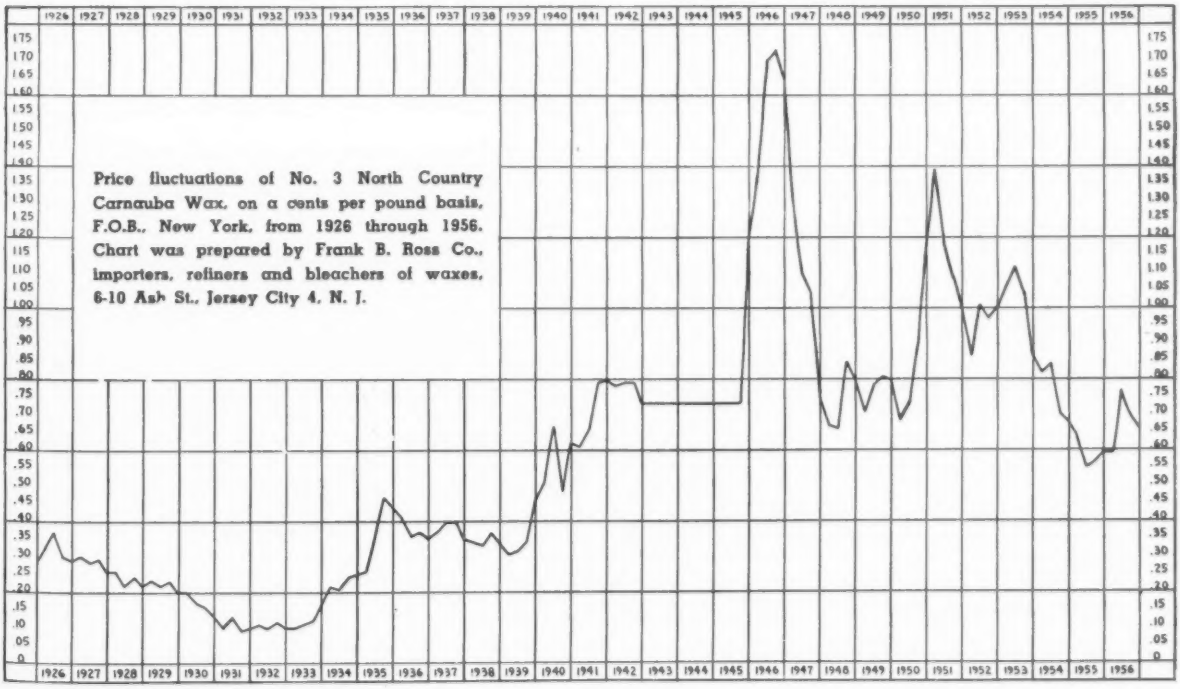
I have gone through our manufacturing procedure quickly, and have touched on the major steps in the manufacture of brake fluids.

Model Label Bill

(*From Page* 73)

ardous substance shall not be sold under such decree contrary to the provisions of this Act or the laws of the jurisdiction in which sold provided that, upon the payment of costs of the proceeding and the execution and delivery of a good and sufficient bond conditioned that such hazardous substance shall not be sold or disposed of contrary to the provisions of this Act, the court may direct that such hazardous substance be delivered to the owner thereof to be destroyed or brought into compliance with the provisions of this Act by relabeling or reprocessing, as the case may be.

When a decree of condemnation is entered against the hazardous substance, court costs and fees,


1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956
Price fluctuations of No. 3 North Country Carnauba Wax, on a cents per pound basis, F.O.B., New York, from 1926 through 1956. Chart was prepared by Frank B. Ross Co., importers, refiners and bleachers of waxes, 6-10 Ash St., Jersey City 4, N. J.

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and storage and other proper expenses, shall be awarded against the person, if any, intervening as claimant of the hazardous substance.

Hearing Before Report of Criminal Violation

Section 6. Before any violation of this Act is reported to the District Attorney for institution of a criminal proceeding, the person against whom such proceeding is contemplated shall be given appropriate notice and an opportunity to present his views to the Secretary, either orally or in writing, with regard to such contemplated proceeding. Nothing in this Act shall be construed as requiring the Secretary to report for prosecution or for the institution of libel proceedings minor violations of the Act whenever he believes that the public interest will be best served by a suitable notice of warning in writing.

Penalties

Section 7. Any person violating the provisions of this Act shall be guilty of a misdemeanor and shall be fined not more than $.... or imprisoned for not more than ..... months, or both.

Time of Taking Effect

Section 8. This Act shall take effect January 1, 19....

Sanitation Book

(*From Page* 43)

maintenance costs can be cut by 80 percent. Although cost is a secondary consideration in a sanitation program, without cost you have no yardstick with which to evaluate the efficiency of the program.

Buildings maintained by the Post Office Department contain over 60,000,000 square feet of floor space. One building alone under POD's care contains over 2,750,000 square feet. The department's current anual budget for cleaning and maintenance supplies and equipment is around $7,000,000, up 45 per cent over its annual expenditure of three years ago. Of this, approximately $250,000 is spent for toilet tissue and paper towels. In addition, the Post Office Department requires about 16,000 man years of labor annually at $2.00 or more per hour to maintain its properties. Even at these rates, according to Mr. Hupert, the department has difficulty in recruiting workmen.

Mr. Hupert's department is responsible for setting up cleaning programs and methods for building maintenance in all buildings operated by the POD. As part of the Post Office Department reorganization, which began four years ago, 15 regions and subdistricts were set up to operate and maintain buildings. He noted that the Post Office is now "designing out" of the buildings it leases as much of the cleaning work as possible. The large number of older buildings operated by the Post Office is one of the major maintenance problems of the department.

Vincent—Agin Dust

THE big problem in hospitals is keeping down the spread of dust and consequent cross infection, Charles Vincent pointed out. The problem of deficits in the hospital, reflected in the low wage scale (one dollar an hour and less) for cleaning personnel, complicates the recruiting of personnel. Most hospitals are operated on a 24-hour-a-day, seven-days-a-week schedule which makes virtually impossible the establishment of a rigid, centrally organized time schedule. Thus, each hospital section is responsible for its own housekeeping. He added that high hospital operating costs usually prevented maintaining the service of a 24 hour cleaning crew on a stand-by basis. What actually happens in most hospitals is that the service department supplements the cleaning functions usually performed by the nurse.

An organization such as a service department, which is nonprofessional, working in environment made up of professional people (doctors and nurses) is bound to have difficulty in establishing its authority.

Although certain hospital cleaning jobs must be specialized, the establishment of a centralized housekeeping department would go far to increase efficiency and make for greater economy.

Mr. Vincent said that never before publication of the Soap Association's booklet has there been any good literature on a high level that explains types of organization and training in housekeeping.

The concluding speaker of the panel, James V. Cawley, said that "this is an important and great day in the history of sanitation." He congratulated Roy Peet on making the book possible. Mr. Cawley said that since sanitation is the maintenance of a healthful environment, it should definitely be a top management problem to be solved by personnel of top management calibre.

A company willing to spend $25,000 to $30,000 a year in salary for the right maintenance man can save itself a million dollars annually in sanitation costs, he said. He added that work area environment should be considered third in importance after the company's product or service and the machinery to make that product.

He cited as evidence of the need for such a book as Messrs. Barron and Burner had written the appalling lack of even the most rudimentary concept of industrial sanitation in several of the nation's largest industrial plants which he had visited recently. Mr. Cawley also commented on the lack of uniformity in sanitation standards between two plants of the same company.

Mr. Peet closed the discussion by saying that he believed the new Institute for Sanitation Management and the book by Messrs. Barron and Burner would be extremely helpful to management in its efforts to handle the sanitation and maintenance of plant and office more efficiently.

... about insecticides

HANDBOOK OF PEST CONTROL

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THIS pest control reference volume, containing more than 200 illustrations and over 1000 pages, deals primarily with household and industrial pests, insects, rodents, etc., their habits, identification and latest means of control. It is the most complete work of its kind ever offered in a single volume.

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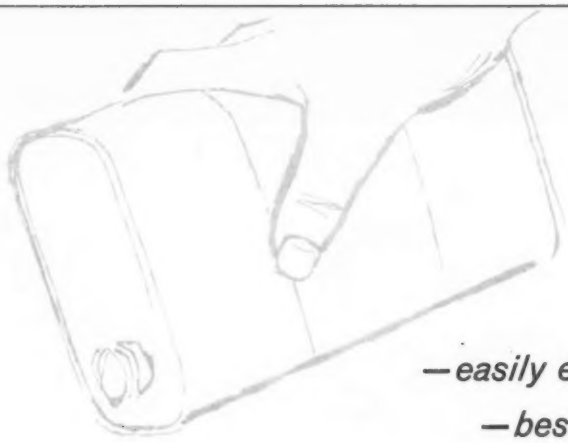

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Packaging...

AEROSOLS • LIQUIDS • PASTES • POWDERS

W. Earl Graham, aerosol pioneer and for the past 20 years with Crown Cork & Seal Co., has just joined Clayton Corp., St. Louis aerosol valve producer, as eastern manager. Active in Chemical Specialties Manufacturers Assn., Earl is chairman elect of CSMA's aerosol administrative committee.

Automotive Chemicals
Cleaners
Detergents
Deodorants
Disinfectants
Floor Products
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Metal Cleaners
Moth Products
Polishes
Shampoos
Shave Products
Soaps
Liquid Starch
Toiletries
and other
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Only Continental GIVES YOU AN EXCLUSIVE LINE OF SIX DOME-TOPPED AEROSOLS

WITH SALES OF AEROSOLS expected to hit 600,000,000 by 1960 (about twice 1956 production), you can see the immediate expansion that lies ahead for every aerosol user. Of all suppliers, Continental is best equipped to meet your growing demands, for two reasons. First, Continental offers the most complete line of aerosol sizes. Second, Continental has greatly increased aerosol production facilities. We're ready to deliver all the aerosols you need, any size, any time, anywhere, from plants across the U.S.

Whatever your product—insecticide or shaving cream, air freshener or hair lacquer—Continental aerosols are tailor-made for you, lithographed with your design by Continental craftsmen. Engineering and research services are also available, as well as introductions to valve suppliers and commercial fillers. You can fill all your container needs *with one order* to save on shipping and handling costs.

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Central Division: 135 So. La Salle St., Chicago 3
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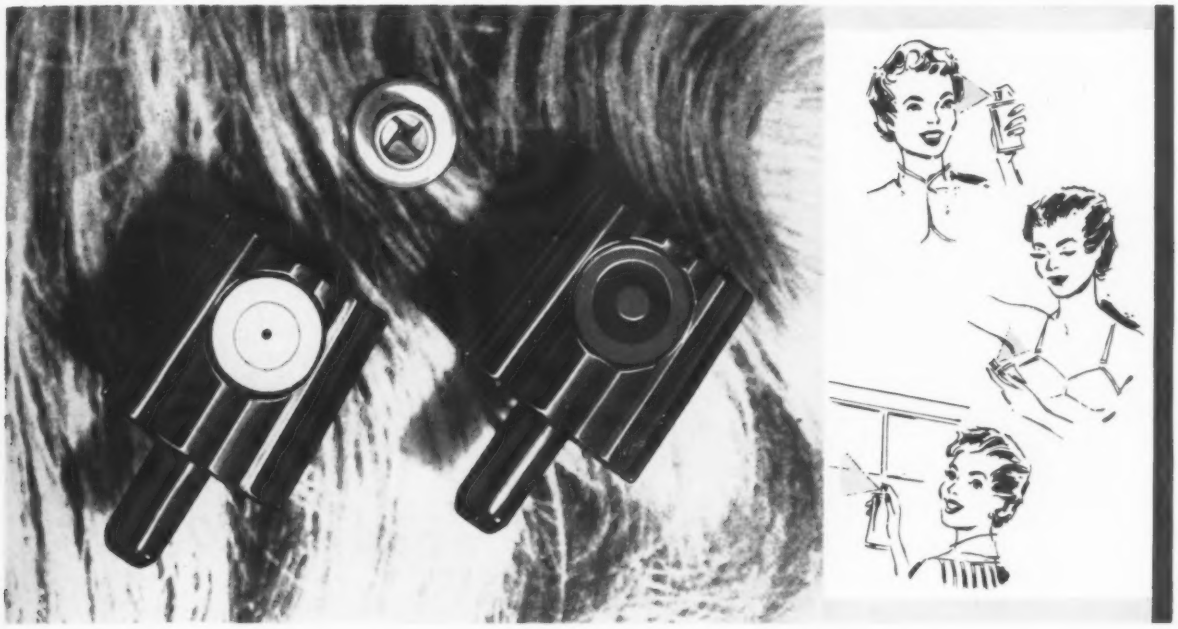
NEWMAN-GREEN CREATES NEW BREAK-UP VALVE FOR MORE EFFICIENT, MISTIER SPRAY PATTERNS

New Aerosol Valve Is Ideal For Dependable Operation With Hair Lacquers, Colognes, Personal Deodorants, & Window Cleaners



The new valve head designed by Newman-Green offers you the most efficient mechanical break-up spray available for a variety of applications. This new aerosol valve gives smooth and dependable operation in use with hair lacquer, cologne, personal deodorant, window cleaner and other low pressure formulations. It provides consistent and uniform spray patterns at all times.

As is the case with all Newman-Green valves, the basic valve unit has not been changed. Only the spray head is new. The new model gives a fine atomization that utilizes low pressure products to the fullest. It eliminates excessive volume during use, keeps spray light, mistier and very effective in use.

For all kinds of designing, engineering, and manufacturing of aerosol valves, come to Newman-Green. We take pride in helping you produce even better aerosol products for today and the future.

Newman-Green offers you a wide selection of spray heads in a variety of colors. All are interchangeable in seconds.

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Packaging NOTES

White Heads New Division

Philip O'C. White, a vice-president of Continental Can Co., New York, has been named head

Philip O'C. White

of the company's newly-formed White Cap and Bond Crown Division, it was announced recently by Lucius D. Clay. The new organization is the result of consolidation of Continental's subsidiary, White Cap Co., makers of vacuum closures for glass-packed food products, and its Crown and Cork Division, producers of bottle caps and cork products.

Mr. White, who with his two brothers founded the White Cap Co. in 1926, has been president of that firm since 1953 and a vice-president of Continental since it acquired White Cap in January, 1956.

Robert White, sales vice-president of White Cap, will be general sales manager of the new division, with A. P. Vining, formerly general sales manager of Crown and Cork in charge of bottle cap and cork product lines. John Swift, previously White Cap general sales manager, will direct sales of vacuum and screw type closures.

—★—

Mrs. Edmund Ball Dies

Mrs. Bertha Ball, widow of the late Edmund B. Ball, one of the five founders of Ball Brothers, Inc., Muncie, Ind., glass container firm, died Oct. 7 in Ball Memorial Hospital, Muncie, after a long illness. Mr. Ball, along with his four brothers, organized the firm in Buffalo, N. Y. in 1878.

—★—

Brockway Appoints Two

Appointment of Robert J. Bailey as midwestern regional sales manager and Harry R. Bruno as Philadelphia district manager of Brockway Glass Co., Brockway, Pa., was announced last month by A. G. Beltz, general sales manager.

Mr. Bailey will direct the sales activities of Brockway offices in Chicago, Detroit, Cincinnati, Cleveland, Indianapolis and St. Louis. He previously served as manager of the company's pharmaceutical and proprietary sales division.

Mr. Bruno will supervise the sales efforts of the Philadelphia staff in eastern Pennsylvania, southern and central New Jersey and Delaware. He formerly served with Brockway's Atlanta and Buffalo offices.

—★—

New Titan "Flow-Pack"

A new disposable container designed for the shipment and storage of both liquid and granular products was developed recently by Titan Pallet Co., 342 Madison Ave., New York 17. Called "Flow-Pack," the new container is available in models from five to 55 gallons and up to 500 pounds for shipment or storage of solids.

—★—

Imco Appoints Donahue

Imco Container Corp., Kansas City, Mo., manufacturer of plastic bottles, recently announced

Morton P. Donohue

the appointment of Morton P. Donohue to its New York sales staff. According to Lee H. Simmons, president, Mr. Donohue will join Leroy Durkin in handling the east coast sales activities of the company. For the past 12 years, Mr. Donahue has been associated with Warner-Lambert Pharmaceutical Co., Morris Plains, N. J.

—★—

Canco-Marathon Merger

Shareholders of American Can Co., New York, and Marathon Corp., Menasha, Wis., producer of pulp, paper and paperboards, will vote Dec. 3 on a proposal to merge the two companies. Terms for the merger were agreed upon by directors of the two firms last month.

Under the agreement, a maximum of 2,970,810 shares of Canco common would be exchanged for Marathon common shares on a ratio of eight-tenths of a share of Canco common for each share of Marathon. Canco would acquire all of Marathon's assets totaling about $161,000,000 and its subsidiaries. Marathon owns or has cutting rights on about 3,000,000 acres of timberland in Ontario, Michigan, Wisconsin and Alabama. It operates four pulp and fourteen paper mills and converting plants.

"How'd those last five loads of J&L drums come in, Joe?"

"Checked 'em all with the drop light, Boss. Clean as a whistle... never saw a better lining job."

- J&L specialists, backed up by modern research, are ready to consult on your toughest packaging problems.
- J&L, an integrated steel producer, controls container quality from start to finish.
- J&L steel containers provide engineered packaging for dependable transportation and safe storage.
- Precise fabrication and correct specification of fittings and closures.
- Prompt dependable delivery from nine plants.

Call your nearest J&L Container Division office for recommendations on your packaging problems. Or write direct to the Container Division, 405 Lexington Avenue, New York 17, N.Y.

J&L STEEL

Jones & Laughlin

...a great name in steel

William C. Stolk, Canco president, said, "The merging of Marathon's modern paper production facilities with our operations will be a major step forward in Canco's program of intergrating raw-materials supply with our manufacting operations wherever feasible and practical. Illustrative of this philosophy has been the institution of our tinplate and steel-plate program," Mr. Stolk said.

At the Canco meeting, stockholders will also be asked to approve an increase in the firm's authorized common stock from the present 15,000,000 to 25,000,000 shares. The additional stock will be used partially to finance the merger and also to enable the company to meet future corporate needs, Mr. Stolk said.

Continental Can Making Aluminum Cans

A NEW line of aluminum cans was introduced last month by Continental Can Co., New York. The new cans are now available in three-piece and drawn models. Early next year Continental will offer aluminum cans formed by impact intrusion.

Lucius D. Clay, board chairman, said that the aluminum containers will initially cost significantly more than the conventional tinplate. However, he added, the differential is expected to shrink as aluminum manufacturers are able to cut costs by more efficient production of can stock and manufacturing processes are improved.

"The cost and supply factors have been the only material obstacles to wide commercial use of aluminum cans," Gen. Clay declared. "Continental has been making them experimentally for 24 years and already has turned out several million for commercial tests."

"Only this year, however, has the supply of aluminum begun to approach a point where this material is available in appreciable quantities for the manufacture of cans.

Gen. Clay emphasized that Continental does not view aluminum as a substitute for tinplate but rather as a material which can give metal containers greater versatility and usefulness.

"Aluminum has definite commercial advantages in such respects as weight saving, resistance to corrosion, shelf life of some products, flexibility of styling and decorative quality," he said. "It will find its greatest utility in containers for products which require a package with visual appeal and which are so priced that the cost of the container is small in relation to the cost of the contents."

Tests packs of aerosol-type products, cosmetics, food products and beverages have been made in aluminum cans over a period of several years at Continental's metal research and development center in Chicago, Gen. Clay said, and the company already has accumulated considerable knowledge on aluminum packaging.

Apart from the making of cans by conventional processes from aluminum plate, Continental foresees a major potential for metal containers in processes new to the can industry, such as impact intrusion and other deep drawing techniques. The technological experience it has gained in the fabrication of tinplate cans, Gen. Clay said, will help it adapt these processes to highly precise mass production operations.

Newest thing in cans are these aluminum containers just announced by Continental Can Co. Tallest can in center obviously is for pressure packaging.

—★—

Knox Appoints McLaughlin

Harry D. McLaughlin has been named manager of industrial relations for the southern division of Knox Glass Inc., Knox, Pa., it was announced recently by A. W. Wishart, president. Mr. McLaughlin will headquarter in Jackson, Miss. He previously had occupied a similar position with the company's northern division. Prior to joining Knox, he had served in industrial relations posts with Corning Glass Works, Corning, N. Y. and Houze Glass Corp.

—★—

Crown Sales Higher

Crown Cork & Seal Co., Baltimore, recently reported an increase in sales and a decline in income and earnings for the nine month period ended Sept. 30. Net sales totaled $89,333,000, as compared with $88,513,000, in the similar period of 1956. Income, however, fell to $252,000 from $1,287,000, equal to share earnings of 72 cents, last year. No common share earnings were reported for the first nine months of 1957.

In the third quarter of this year, Crown announced that sales dropped slightly to $28,557,000 from $28,736,000, in the corresponding period a year ago. Income in the three months ended Sept. 30 was $281,000, equal to share earnings of 12 cents. This compared to $396,000 and 21 cents, in the third quarter of 1956.

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Controlled dispensing . . . disposable container! That's the big reason why inert polyethylene tubes and bottles are used by all leading manufacturers of hair waving preparations.

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BRADLEY CONTAINER CORPORATION

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Maynard, Mass. — *New York, Chicago, Los Angeles, Toronto*

Mengle Heads Glass Group

Glenn A. Mengle, president of Brockway Glass Co., Brockway, Pa., has been named chairman of the market research and promotion committee of the Glass Container Manufacturers' Institute. Mr. Mengle succeeds Franklin A. Pollock, chairman of the board of Thatcher Glass Manufacturing Co., Elmira, N. Y., who resigned the committee chairmanship a post he had held for four years.

—★—

Bradley Names Downing

Appointment of James B. Downing, Jr., as general sales assistant of Bradley Container Corp., Maynard, Mass., a subsidiary of American Can Co., was announced recently. He succeeds Daniel T. Hayes, who has been transferred to Canco's New York office as a plastics specialist in new product development. With Bradley since 1954, Mr. Downing had been a production supervisor at the Maynard plant.

—★—

Continental Sales Up

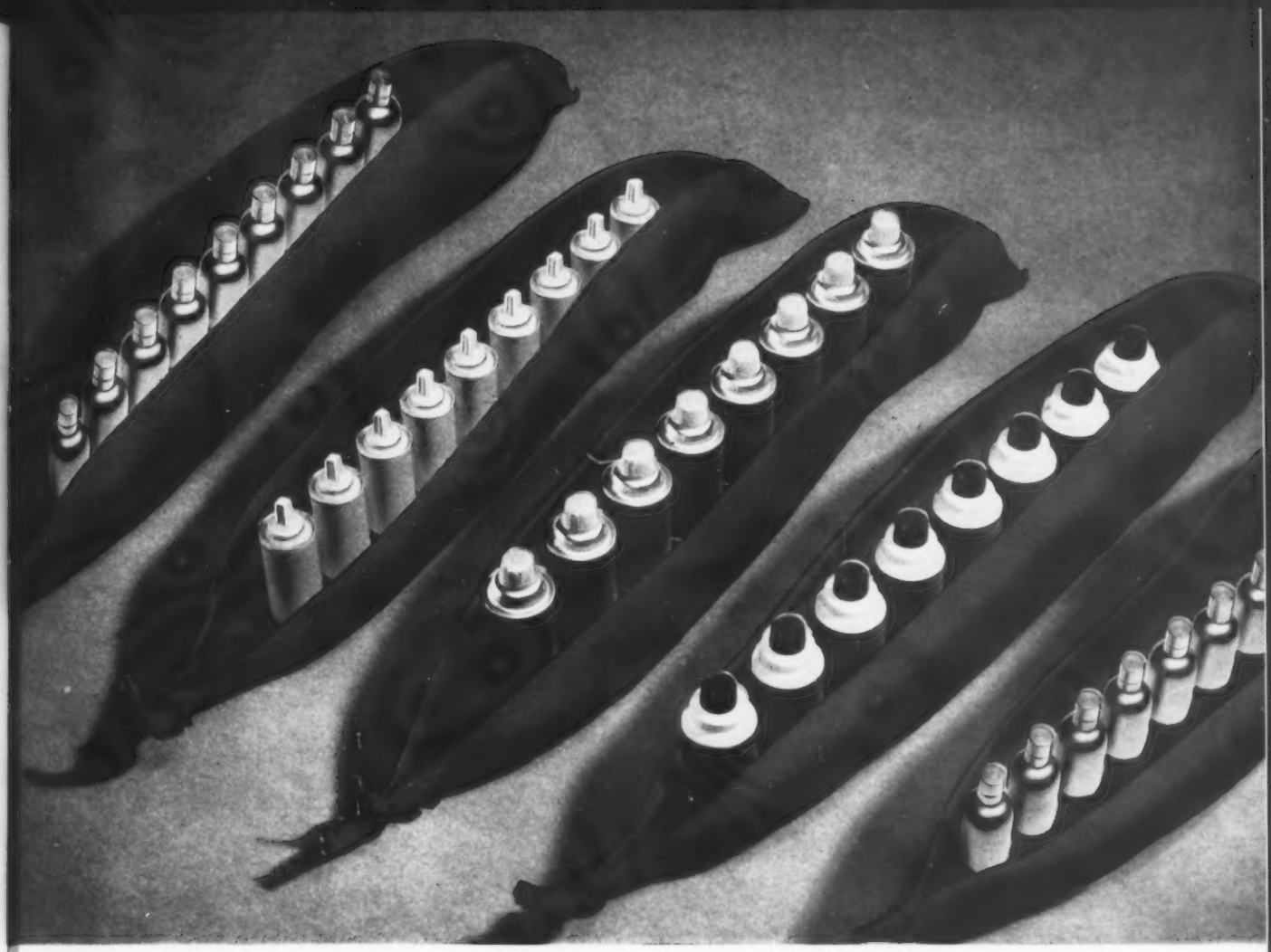
Net sales and earnings of Continental Can Co., New York, showed a substantial increase in the third quarter of 1957, it was announced recently by Lucius D. Clay, chairman.

Sales for the three months ended Sept. 30 totaled $312,569,000, as compared with $295,417,000, in the corresponding period of 1956. Income amounted to $14,537,000, equal to share earnings of $1.26 per share. This compared with $13,771,000 and $1.19 per share a year ago.

—★—

Ringman in New Post

National Can Corp., Chicago, advanced Arthur Ringman to division sales manager of its newly created southeast sales division, it was announced last month. With National Can since 1950, Mr. Ringman served as assistant sales manager of the central division prior to his recent appointment, which brings him from Chicago to Baltimore.



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New Continental Closure

Development of a hinge style polyethylene closure that dispenses fluids with a fine spray was an-

nounced recently by the plastic container division of Continental Can Co., New York. Designed for use with standard polyethylene bottles of cylinder, oblong or oval shape, the new cap, by varying the dimensions of inner spray tubing, may be utilized for dispensing a wide range of liquids, including detergents, window cleaners, insecticides and room deodorants. The top portion of the captive closure is attached to the rest of the cap by a strip of polyethylene.

★

Squeeze Bottles on Rise

More than 400 million polyethylene containers will be sold in 1957, compared with about 60 million in 1952, according to an article in the October-November issue of *Du Pont Magazine*, house organ of E. I. du Pont de Nemours & Co. Entitled "The Squeeze is On", the article describes a visit to Bradley Container Corp., Maynard, Mass.

Founded in 1954 the concern became a subsidiary of American Can Co. last fall. The firm expects to make more than 100 million polyethylene tubes and bottles and 72 million squeeze cans this year. Its 292 customers package 435 different specialty products, including household detergents, shave creams, silver polish etc.

Bradley's automatic high speed production methods are based on a Swiss invention which combines extrusion and injection molding. Dispensing nozzles are integrally molded with the head of the tube or bottle, which makes the filling of the containers simple and economical. Bradley extruders are fed du Pont's "Alathon 20" polyethylene resin. Out of the extruder flows a continuous tube which is cut to length and printed by a high speed offset process. In the case of tubes and bottles the dispensing top is then molded and welded to the cylinder. For squeeze cans, formed metal ends are joined mechanically to the extruded body by can-making techniques. Squeeze containers are proving especially popular for insecticides and the fast-growing liquid detergents, sales of which jumped 67 per cent in 1956, says the article.

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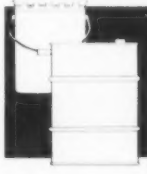

VULCAN STEEL CONTAINER CO.

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New Chapman Printer

A new portable printing machine for use on five gallon cans was developed recently by the metal products division of Chapman Chemical Co., Memphis, Tenn. Called "Chapco Print-A-Can," the unit is said to produce quality printing at costs below that of lithographed or paper labels, silk-screening or stenciling.

Said to handle up to 500 containers per hour, the machine uses rubber printing plates molded from standard typographic forms or hand set by assembling rubber type on an interlocking base. Each plate is claimed to be good for many thousands of impressions. Printing area is nine by 14 inches and type as small as 10 point may be used.

Ink is said to dry immediately after application so that cans may be directly put into production lines. Both inks in all colors and plates may be obtained from the manufacturer.

The machine, which is suitable for use on any type five gallon container, weighs 160 pounds and is equipped with casters. Operation is mechanical requiring no electric or air power. An accessory drum printer for use on 30 and 55-gallon containers is also available from the manufacturer.

—★—

Anchor Hocking Income Up

Anchor Hocking Glass Corp., Lancaster, O., recently reported a substantial increase in earnings for the nine-month period ended Sept. 30. Net income amounted to $5,523,591, equal to share earnings of $2.74. This compared to $3,915,925 and $2.62, in the corresponding period of 1956.

—★—

O-I Sales Increase

Owens-Illinois Glass Co., Toledo, recently reported an increase in sales and earnings for the first nine months of 1957. Net sales rose to $384,992,079 from $371,272,315 in the corresponding period last year. Net income amounted to $26,277,574, equal to share earnings of $3.33. This compared with $26,033,558 and $3.30 in the first nine months of 1956.

—★—

Knox Glass Dividend

Knox Glass Co., Knox, Pa., last month declared a one and one-half per cent dividend payable Nov. 15 to stockholders of record on Nov. 1. Payment of this dividend makes the fourth straight quarterly dividend declared by the company.

—★—

Diversey Earnings Lower

Diversey Corp., Chicago, recently reported a decline in income and earnings for the first nine months of 1957. Net income totaled $409,937, equal to share earnings of $1.56. This compared with $443,049 and $1.71 in the first nine months of 1956.

In the third quarter of this year, net income dropped to $178,071, equal to 68 cents per share, from $208,550 and 81 cents per share in the third 1956 quarter.

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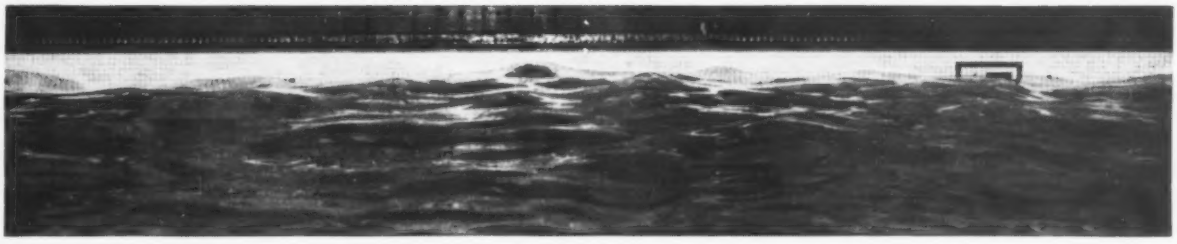

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All filling is done according to your specifications, or we'll be glad to handle the testing and make a recommendation. Efficient production on all lines keeps supplies of your product ahead of demand, and our warehousing facilities make it possible for us to *drop ship*. Write, wire, or phone us for details about our complete filling services.

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New Canco Coil Line

The can manufacturing industry's first complete lines for processing tinplate from coils in the Midwest were dedicated recently in ceremonies at the St. Louis plant of American Can Co., New York. Two Canco vice-presidents, F. B. Newcomb, Chicago, and J. A. Stewart, New York, attended the affair, in addition to about 150 midwestern canners and businessmen.

Speaking before the group, Mr. Newcomb pointed out that the St. Louis coil plant is the third of a number of similar installations Canco plans to open this year throughout the country. The first of the company's coil lines was opened at Tampa, Fla., in May.

★

Hardware Packaging Study

Packaging problems and opportunities in the hardware field will be surveyed by the Folding Box Association, it was announced recently by Gustav L. Nordstrom, executive director. He said that the nation-wide study will be made with the cooperation of the National Retail Hardware Association.

The research project, it is hoped, will determine what independent hardware retailers like and dislike about present packaging, how they rate various types of packages, and what elements of design, size and shape they prefer for different products, Mr. Nordstrom said.

The survey, he added, will seek to determine how better packaging can cut handling costs as well as boost sales of hardware store items. It will cover 13 major categories, including cleaning and maintenance supplies.

★

New W. Va. Pulp Division

West Virginia Pulp & Paper Co., New York, recently announced that its subsidiary Hinde & Dauch Paper Co., Sandusky, O., shipping carton and display producer, will henceforth be operated as a division. Charles E. Frohman will be the new president of the division, a subsidiary of West Virginia Pulp and Paper since 1953.

Mrs. Edmund F. Ball, whose husband is president of the Glass Container Manufacturers Institute and president and chairman of Ball Brothers Co., blows glass bottle at Jamestown, Va., replica of glasshouse erected almost 350 years ago by America's first colonists. Joseph Geagley (left) of Armstrong Cork Co. and Mr. Ball look on. Some 200 executives of GCMI member companies and their wives visited the birthplace of American industry in conjunction with GCMI membership meeting held recently at Cavalier Hotel, Virginia Beach.

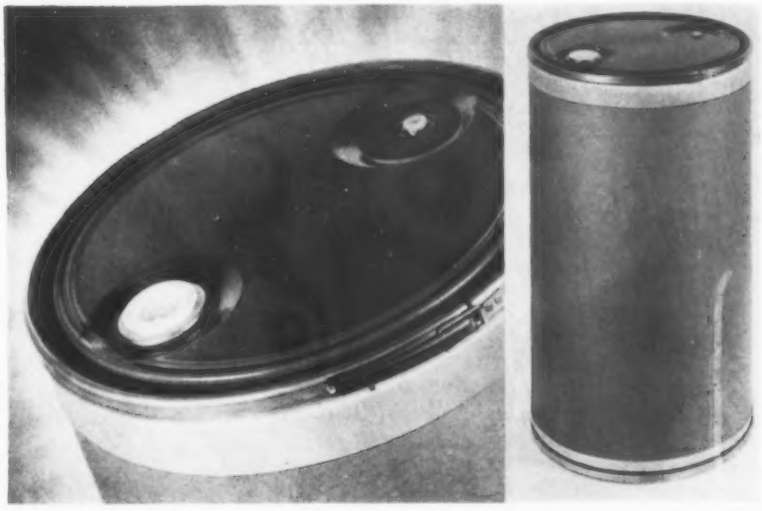
Glenn A. Mangle, left, recently named to chairmanship of GCMI's market research and promotion committee is congratulated by Franklin A. Pollock, retiring chairman.

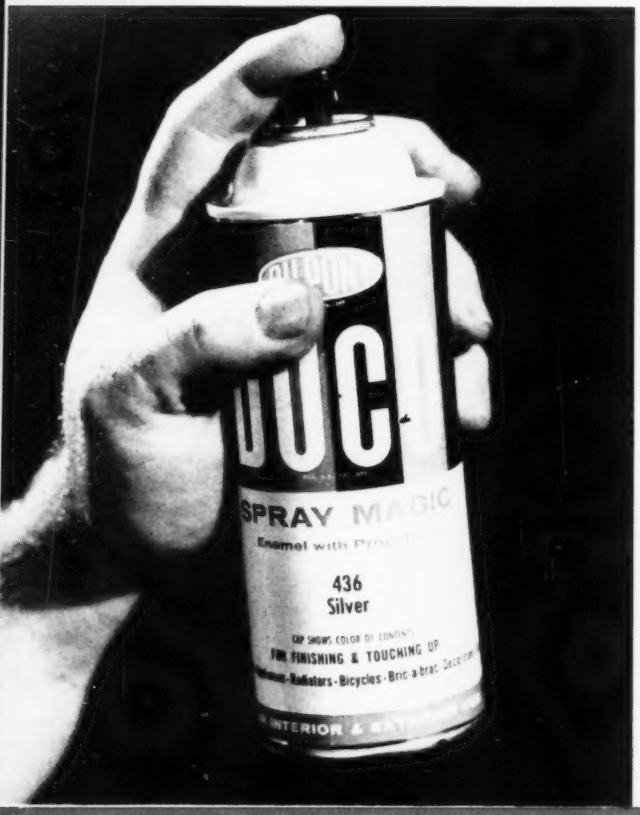
★

New Fibre Drum

Continental Can Co., New York, recently announced development of a new fibre drum for packaging liquid and semi-liquid products. Called "Liquipak," the new drum is produced by Continental's fibre drum and corrugated box division and features a polyethylene lining and an insulated fiber sidewall to protect the product from sudden temperature changes during transit or in storage.

"Liquipak" also incorporates a liquid-tight bottom crimp, heavy duty galvanized top and bottom chimes, and either a vinyl or epoxy coated metal cover available with or without bungs and vents. A special locking device is claimed to make the unit simple to open and close, with a full open top for easier dispensing of the contents.





What's New

Armour and Co., Chicago, recently announced that its "Chiffon" liquid detergent is now being marketed in a new 32-ounce king size container. A special introductory offer of 25 cents off the retail price will be given for a limited period. Shelf displays and shopping cart displays are available to dealers. Product previously was marketed in 12 and 22 ounce containers.

New "Sachet Mist," aerosol cologne, introduced recently by Roger & Gallet, comes in two fragrances, blue carnation and fleurs d'amour. Package, a Crown can which retails for $2.00, features a gold and white linen-textured label with red lettering.

New "Duco" spray enamel, announced recently by E. I. du Pont de Nemours & Co., Wilmington, Del., comes in clear, silver, gold, white, black in gloss and semi gloss, and six colors, all full alkyd enamels. Packaged in a 16-ounce aerosol container by Continental Can Co., New York, product contains du Pont's "Freon" propellant.

"Tweedie," a new line of children's toiletries, by Lentheric Division of Helene Curtis Industries, Inc., Chicago, includes bath soap, bubble bath packets, bubble bath liquid and toilet water. The line features seven package variations, ranging in price from $1.00 to $2.50. Color scheme of package is pink, blue and gray.

Orb Industries, Springfield, Pa., recently introduced a new aerosol insecticide designed to control roaches, ants, carpets beetles and silverfish. Product contains 0.5 per cent lindane. One-pound aerosol package is by Continental Can Co., New York. Valve is by Aerosol Research Co., Forest Park, Ill.

New Christmas package, announced by Plasti-Kote, Inc., Cleveland, features 16-ounce aerosol containers of Christmas snow and fire extinguisher. The products will be offered with a multi-colored point-of-purchase display wrapper at a special holiday promotion price.

John H. Breck, Inc., Springfield, Mass., is now marketing its line of shampoos in new color-coded packages for simplified product identification. New gold foil cartons, in addition to copy printed in red and black, bear identifying letters superimposed on specially designed color squares utilizing red for shampoo for dry hair, blue for shampoo for normal hair and yellow for shampoo for oily hair.

Development of a new midget aerosol insecticide, containing "Pyrenone," was announced recently by Fairfield Division of Food Machinery and Chemical Corp., New York. Designed to control flies, gnats and mosquitoes, product features metered aerosol valve by Valve Corp. of America, Bridgeport, Conn. Two-ounce package is by Peerless Tube Co., Bloomfield, N. J. Cap is by Sterling Seal Co., Erie., Pa.

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NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12(a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany each notice of opposition.

Petasol—This for animal insecticides and dry bath shampoo. Filed Mar. 25, 1957 by Virginia Smelting Co., West Norfolk, Va. Claims use since Nov. 23, 1956.

Gro-Well—This for insecticide. Filed Apr. 8, 1957 by J. & L. Adikes, Inc., Jamaica, N. Y. Claims use since Mar. 15, 1957.

Lumar—This for textile softener in powder form. Filed June 4, 1957 by Marlyn Chemical Co., Lakeview, O. Claims use since May 21, 1956.

Grip-Crete—This for protective coating for concrete and metal. Filed Oct. 17, 1956 by Empire Varnish Co., Cleveland. Claims use since June 27, 1956.

Silver Shield—This for antitarnish coating. Filed Feb. 7, 1957 by Silver Shield Mfg. Co., Cranston, R. I. Claims use since Sept. 24, 1956.

Misty-Glo—This for all-purpose liquid protective coating. Filed Mar. 11, 1957 by Rigsbee Janitor Supply Co., Marion, Ind. Claims use since July 21, 1950.

Release—This for machine dishwashing compound. Filed Mar. 13, 1957 by Dubois Co., Cincinnati. Claims use since Feb. 2, 1957.

Jobe — This for liquid rug cleaner. Filed Mar. 22, 1957 by Jobe Products, Brooklyn, N. Y. Claims use since May 17, 1950.

Twenty-One — This for floor wax. Filed Apr. 24, 1957 by Franklin Research Co., Philadelphia. Claims use since Nov. 7, 1945.

Fab-Rite — This for laundry starch. Filed Mar. 25, 1957 by Texize Chemicals, Inc., Greenville, S. C. Claims use since Dec. 20, 1956.

Kleanrite — This for rust remover. Filed July 5, 1956 by L. O. Burrell Co., Buffalo, N. Y. Claims use since July 1, 1913.

Aqua Sonic—This for metal cleaner. Filed Oct. 29, 1956 by Northwest Chemical Co., Detroit. Claims use since Aug. 9, 1956.

Spong-A-Fom — This for cellulose sponge containing detergent. Filed Feb. 20, 1957 by Deltox Rug Co., Oshkosh, Wis. Claims use since Feb. 7, 1957.

Surpco—This for all-purpose cleaner. Filed Mar. 21, 1957 by Red Spot Paint & Varnish Co., Evansville, Ind. Claims use since Feb. 14, 1957.

Speed-D-Burretts — This for metal polish. Filed Feb. 13, 1957 by Speed-D-Burr Corp., Glendale, Calif. Claims use since Sept. 10, 1953.

Facete—This for metal polish. Filed Apr. 29, 1957 by Gerald F. McMahon, doing business as Facete Co., Seattle, Wash. Claims use since Apr. 1, 1957.

Bridgeport — This for weed killer. Filed Jan. 13, 1956 by Bridgeport Brass Co., Bridgeport, Conn. Claims use since Mar. 24, 1955.

No Kro—This for corrosion inhibitor. Filed May 18, 1956 by No-Kro Co., Chanute, Kans. Claims use since Apr. 10, 1956.

Hy-tox — This for insecticide. Filed Oct. 18, 1956 by Miller Chemical & Fertilizer Corp., Baltimore. Claims use since 1940.

Smoothie—This for fabric softener. Filed Feb. 4, 1957 by Abso-Clean Chemical Co., Detroit. Claims use since Oct. 1, 1940.

Instant—This for drain pipe cleaner. Filed Apr. 13, 1954 by Camp Chemical Co., Brooklyn, N. Y. Claims use since Mar. 1, 1948.

Derasol—This for ceramic tile cleaner. Filed Dec. 13, 1955 by Surf Chemical Corp., Burbank, Calif. Claims use since May 16, 1955.

Tempo—This for household and laundry detergent. Filed June 22, 1956 by Procter & Gamble Co., Cincinnati. Claims use since Apr. 26, 1956.

Coral—This for household liquid synthetic detergent. Filed Dec. 14, 1956 by Sinclair Manufacturing Co., Toledo. Claims use since Apr. 10, 1956.

Nu-Met—This for metal cleaner. Filed Feb. 7, 1957 by Diamond Alkali Co., Cleveland. Claims use since Dec. 4, 1956.

Roux—This for shampoo. Filed Feb. 8, 1957 by Roux Laboratories, Inc., New York. Claims use since May 28, 1956.

Hollywood—This for shoe polishes. Filed May 15, 1957 by Hollywood Shoe Polish, Inc., Richmond Hill, N. Y. Claims use since Aug. 1, 1925.

Rex—This for room deodorant. Filed Apr. 24, 1957 by Rex Research Corp., Toledo. Claims use since June 15, 1948.

Flex-Trete—This for floor finish. Filed May 8, 1957 by Phelan-Faust Paint Manufacturing Co., St. Louis, Mo. Claims use since Apr. 2, 1957.

Perma-Strate—This for shampoo. Filed Mar. 22, 1957 by Perma-Strate Co., Memphis, Tenn. Claims use since May 1, 1946.

Le Page's — This for skin cleanser. Filed Jan. 2, 1957 by Le Page's, Inc., Gloucester, Mass. Claims use since Oct. 22, 1956.

Aquilaun — This for liquid cleanser for washing fabrics. Filed Apr. 10, 1957 by Stanley Home Products Inc., Westfield, Mass. Claims use since Mar. 6, 1957.

Johnson—This for dry bleach powder. Filed Oct. 1, 1954 by Johnson Chemical Industries, Inc., Catonsville, Md. Claims use since June 29, 1954.

Bait-Tox — This for insecticide and rodenticide. Filed June 25, 1956 by Sanitation Products Co., Charlotte, N. C. Claims use since Apr. 30, 1955.

Anco—This for granulated soap. Filed June 29, 1956 by Anderson Co., Gary, Ind. Claims use since December, 1940.

Calusa—This for laundry soaps and detergents. Filed Sept. 10, 1956 by Calusa Chemical Co., Los Angeles. Claims use since Feb. 15, 1956.

Orco—This for soaps. Filed Feb. 11, 1957 by Organic Chemical Corp., East Providence, R. I. Claims use since January, 1948.

Pond's—This for hair shampoo. Filed Feb. 18, 1957 by Chesebrough-Pond's, Inc., New York. Claims use since Nov. 8, 1956.

Pygmalion—This for soap. Filed Mar. 14, 1957 by Evirpure Processors Corp., New York. Claims use since Feb. 27, 1957.

—★—

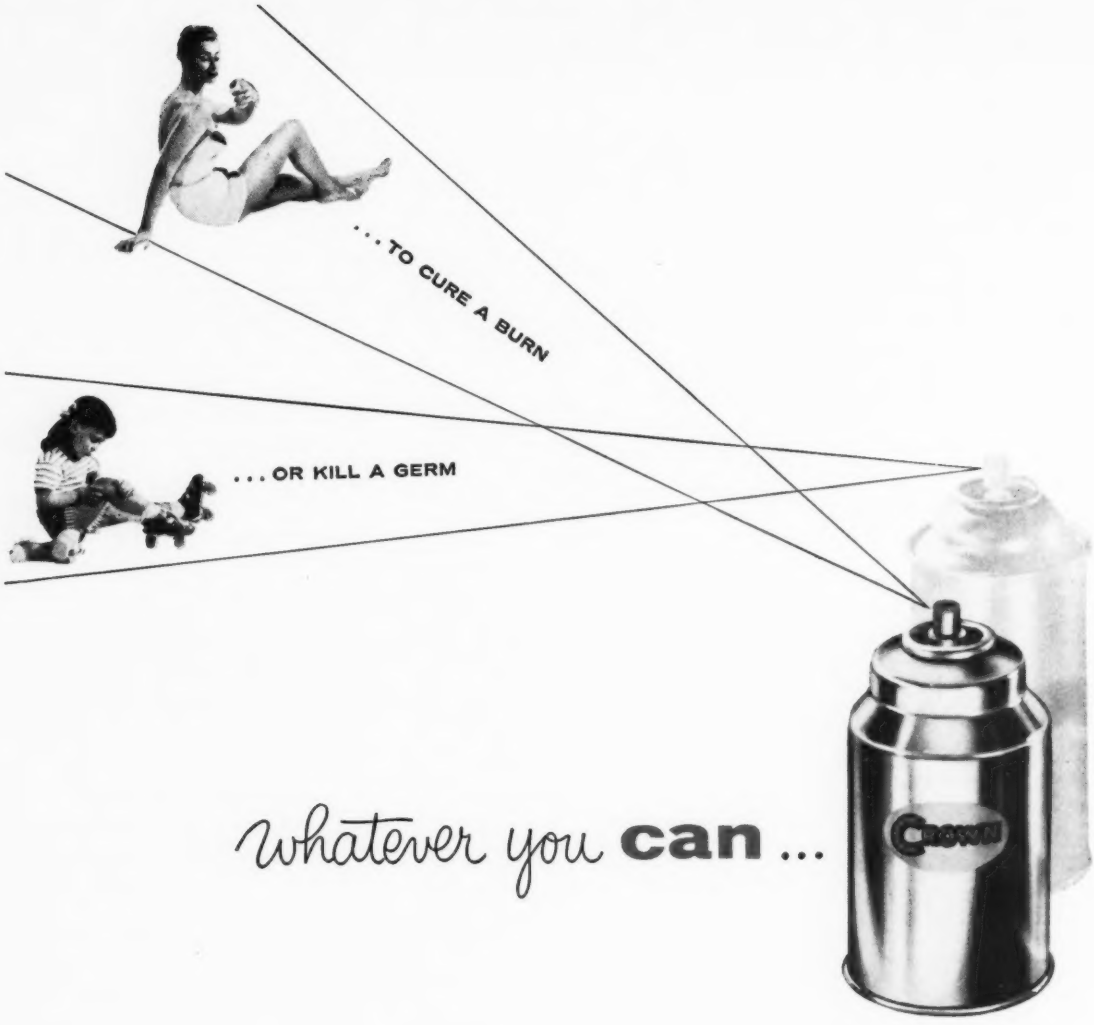
New West Atlanta Office

West Chemical Products, Inc., Long Island City, N. Y., recently announced that it has moved its southeastern district headquarters from Birmingham, Ala., to Atlanta, Ga. The new offices will be located in a newly-constructed building at 1248 Zonolite Rd., N.E. Chester L. Powell will continue as southeastern district manager for the company.

—★—

New Monarch Cleaner

A new concentrated cleaner formulated for hand brush cleaning of milking equipment, floors, walls and bulk coolers, was introduced recently by Monarch Chemical Co., Inc., 3801 North East Fifth St., Minneapolis 21. Called "Sepko," the product can be applied with either lukewarm or hot water. It is available in five and ten pound cartons, 25 pound reusable pails, 100 pound kegs, 150 pound barrels and 250 pound drums.



whatever you **can** ...

can with CROWN Spra-tainers

For sunburn remedies or pressurized antiseptics—for literally hundreds of medicinals such as lotions, antibiotics, and inhalants—*can* with CROWN, the only source for Spra-tainers . . . seamless or fabricated.

As the originator of Spra-tainer, the disposable aerosol containers, CROWN produces more pressure cans than any other company. When you call on CROWN leadership and experience, you get packaging ideas that make old or new products pay off at retail levels.

Write for your copy of CROWN's new 3rd edition—"GUIDE TO PRESSURE PACKAGING." Crown Cork & Seal Company, Inc., Can Division, 9372 Ashton Road, Philadelphia 36, Pa.

whatever you can . . . call on **CROWN**

CROWN CORK & SEAL COMPANY, INC.

MANUFACTURERS OF CLOSURES, CONTAINERS AND MACHINERY

PRESSURE PACKAGING

Powr-Pak Names Elmi

Appointment of Steele Elmi as technical director of cosmetics and household specialties of Powr-

Steele Elmi

Pak, Inc., Bridgeport, Conn., was announced recently. In his new assignment, Mr. Elmi will direct research and development of aerosol cosmetic products and also handle customer technical service in the formulation and compounding of aerosol cosmetic products.

Prior to joining Powr-Pak, Mr. Elmi served in the technical service department of General Chemical Division of Allied Chemical & Dye Corp., Edgewater, N. J. He is best known for his work in development of poly-vinyl pyrrolidone and polyvinyl alcohol copolymers for use in the aerosol packaging of hair sprays. He also developed "CIBA'S 325" resin for use in aerosol hair sprays. In addition, Mr. Elmi has given numerous lectures and has written many papers on the subject of pressure packaging.

★

Carter Stock Offering

Carter Products, Inc., New York, last month announced that, subject to approval by the Securities and Exchange Commission, it will in the near future list 2,690,000 shares of its common stock on the New York Stock Exchange. An initial public offering was made several months ago at $22 per share.

The company, manufacturer of "Rise" aerosol shaving cream and proprietary drug products, also reported that it is now selling more tranquilizing pills and powders than anything else. In the 1957 fiscal year, "Miltown" and other meprobamate powder accounted for almost $24,700,000 of its $41,835,609 sales.

★

Crown Can Expands

A facilities expansion program designed to increase substantially its production capacity for 12-ounce aerosol containers is now in the final stages, it was announced last month by the Can Division of Crown Cork & Seal Co., Philadelphia. The expanded program includes additional research facilities at the Philadelphia plant for development of improved internal coatings for aerosol containers. In addition, production line capacity for all types of aerosol packages will be increased.

★

Prussin Joins ATI

Samuel Prussin has joined Aerosol Techniques, Inc., Bridgeport, Conn., as director of sales development, it was announced last month by H. R. Shepherd, president. For the past eight years, Mr.

Samuel Prussin

Prussin had served as associate director of research and product development for Rexall Drug Co., Los Angeles. In his new post, Mr. Prussin will direct ATI's new product and marketing research programs in the company's established lines as well as in the re-

A new pressure package design developed by the Can Division of Crown Cork & Seal Co., Philadelphia, consists of a 12-ounce fabricated "Spra-tainer" featuring printing on the standard deep-drawn dome top. The entire container, originally developed for Reddi-Wip, Inc., is now available for all product lines. The new printed-dome top provides new package decoration and merchandising possibilities. Using this new technique it is now possible for a container to have complete, over-all color lithography for maximum consumer eye-appeal. Use of "log-roll" lithographic decoration on a portion of the label can provide product identification when package is placed on its side in display case or dispenser rack.

Window Cleaners in aerosols...*

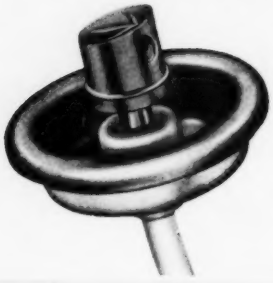
*Top off your product with a Precision Valve for perfect assurance of a non-returnable item on the market shelf.

Today's window cleaner manufacturers are aware of the brand-new and fast-selling market for their products; this has come about by the consumer's acceptance of aerosol dispensers. This year has shown that the pioneers of aerosols for almost any home-cleaning product whether it is a detergent, wax, insecticide or window cleaner, were correct in their foresight; and sales are far ahead of competitors. Today's market demands convenience, economy and perfect operation of aerosol products.

The aerosol dispenser with a Precision Valve gives you a guaranteed operation.

When you are testing, sampling, checking your product for the aerosol market, be sure to test, sample, check, Precision Valve for the tops in your new product.

P.S. Aerosol units are expected to reach close to 400,000,000 this year.



PRECISION VALVE CORPORATION

700 NEPPERHAN AVENUE · YONKERS, NEW YORK

cently-formed nitrogen propellant division.

—★—

Mark Biddison Retires

Mark Biddison, former president of General Chemical Division of Allied Chemical & Dye Corp., New York, last month announced his retirement, after more than 40 years with the company. Mr. Biddison served as president of the General Chemical Division from 1951 to 1955. For the past two years he had served as a consultant.

He began his career as a salesman in the New York district, later becoming manager of the company's Cleveland and New York offices. He was named assistant general manager of the New York office in 1934 and subsequently served as general manager and vice-president, before becoming executive vice-president early in 1951.

Mr. Biddison was instrumental in commercial development of the company's "Genetron" aerosol propellants, which were placed on the market during his tenure as president.

(See cuts of aerosol farewell presents given to Mr. Biddison on page 37.)

—★—

Clayton Appoints Graham

W. Earl Graham has been named eastern manager of Clayton Corp., St. Louis, Mo., manufacturer of aerosol valves, it was announced recently. He will headquarter in New York and represent the company's complete aerosol valve line.

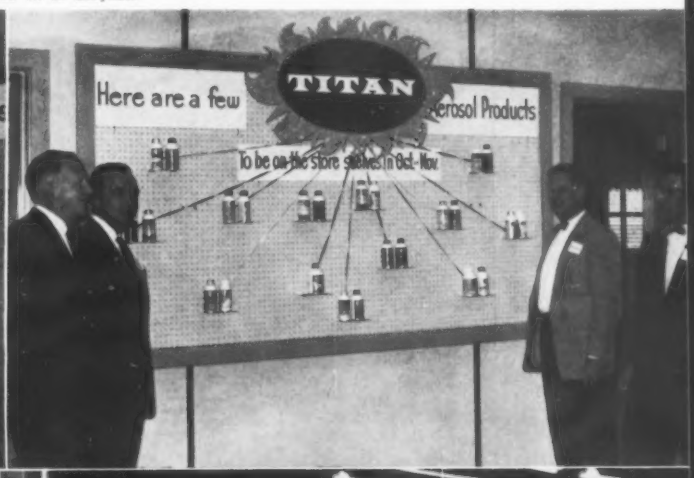
Formerly manager of research for the Can Division of Crown Cork & Seal Co., Philadelphia, Mr. Graham has had 25 years experience in the packaging industry. From 1932 to 1937, he was a chemist, and later production manager, with Francis H. Leggett & Co., Landisville, N. J.

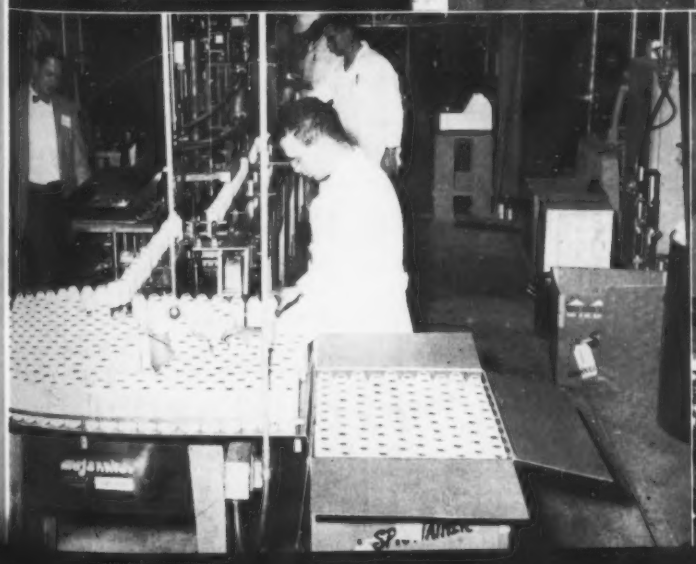
Mr. Graham joined Crown in 1937 as a midwest research representative. He was placed in charge of their research department in 1941. In that post, he was responsible for customer research, product development and container research.

In the past 10 years, Mr. Graham has been active in the formulation of government regulations on aerosols and has been pominent in the work of the Aerosol Division of the Chemical Specialties Manufacturers Association, having served as chairman of the scientific committee. He is chairman-elect of the association's aerosol administrative committee for 1958.

(Cut of Mr. Graham appears on Packaging Section flyleaf, page 107.)

To mark its formal entry into the field of aerosol filling and marketing, the aerosol division of Titan Chemical Industries held open house at its plant in Colorado Springs, Colo., Sept. 28 and 29. Titan plans to manufacture a complete line of aerosols under its own label and do custom filling too. Photos below, taken during the first public inspection by invitation to the plant, show, left to right and top to bottom: Joseph D. Park, executive vice-president, Everett Cole, president and Paul L. Barrick, secretary treasurer; R. L. English, traffic consultant to Titan, H. B. Goldsby, sales manager, M. M. Reynolds, division manager, and R. J. Seffl, chief chemist; Mr. Reynolds examines company's aerosol production line prior to open house; shown at aerosol shave cream production line are R. J. Seffl, H. B. Goldsby, M. M. Reynolds and R. L. English.





It will pay you to test this *New* AEROSOL VALVE

The new OEL Aerosol Valve has a combination of qualities that make it the most efficient and versatile so far offered to industry. This valve is exceptionally fast loading, adaptable to both pressure and cold filling, safe with inflammable materials, has minimum propellent loss in pressure filling, has esthetic appearance, requires minimum changes in adapting to wide range of dispensing requirements. The OEL Valve also excels in 3-phase packages, providing mechanical particle break-up.

A test may show how you can save money and increase product sales. Send for information and samples.

10 PRODUCTS—Varied Dispensing Requirements

SAME OEL VALVE

- Nos. 1, 2, 4 and 5 use dispenser fitments requiring no overcaps. Have OEL patented halfturn lock and unlock operating button, suitable for shaving creams, shampoos, etc.
- Nos. 7, 8 and 10 feature dispenser button for cosmetics, hair sprays, etc., in glass, plastic and metal containers—very fine, standard and 3-phase dispensing.
- Nos. 3, 6 and 9 with overcaps. Used for insecticides, room fresheners and products needing fine, heavy or wet discharges (paints, garden sprays, etc.).

WRITE OR TELEPHONE FOR COMPLETE INFORMATION AND SAMPLES

OIL EQUIPMENT LABORATORIES, INC. 600 PEARL STREET ELIZABETH, NEW JERSEY

NEW— Small Run Aerosol "Cold" Filler

◀ ***Complete Unit*** — **Formica top 30" x 48" with chilling unit, air compressor, air crimper and laboratory scale.**

Chilling Unit—**Showing cold box and valves for controlling flow of propellants.** ▶

Small production "cold" filler capable of filling approximately 1000 — 6 oz. cans per 8 hour day. Two different propellants can be mixed and filled. 20 cans and product can be pre-cooled in the cold box. Completely automatic refrigeration unit—maintains cold box temperature of —40°F and cold coil temperature of — 50°F. Safety features include high-pressure blow-off valve and pressure operated cutout.

EXCELLENT FOR: Laboratories and Small-Run Specialty Products

For complete information, write

BUILDERS SHEET METAL WORKS, INC.

or call

BILL SCHECK — CAnal 6-5390

108 Wooster Street **New York 12, N. Y.**

Aerosol Expands Plant

Aerosol Corp. of the South, Arlington, Tenn., has expanded its plant in that city, it was announced last month. The additional facilities include the latest filling and processing equipment.

—★—

PVP in Hair Preparations

Hair sprays based on polyvinyl pyrrolidone impart luster to the hair and make it more manageable, probably owing to the hygroscopic properties of PVP. Formulations require adjustments for different climatic conditions, different types of hair and for the degree of crispness desired by the user. PVP content and type and quantity of plasticizer used determine the properties of the final product.

In a dry climate PVP hair lacquers are said to be somewhat drying to the hair and in the U. S. a humectant is commonly incorporated in such formulations. By contrast, in the U.K. a water repellent plasticizer is used by most producers to make the hair finish reasonably damp proof.

Solids content of lacquers should be determined by the type of hair to which the product will be applied: two per cent PVP for fine silky hair, seven to eight per cent for coarse hair. In commercial British practice a four to six per cent PVP content is usual.

If water repellency is desired, an oily plasticizer, such as an alcohol soluble lanolin derivative, or isopropyl myristate, may be used. As an alternative a phthalate plasticizer, together with a small quantity of an alcohol silicone, may be incorporated in the formulation. In the presence of five per cent PVP one half per cent plasticizer will produce a crisp finish, one or two per cent plasticizer will result in softer and less visible finishes.

For pressurized hair lacquers of this type substantially anhydrous ethyl alcohol should be used as solvent. Iso-propanol may also serve as a solvent for aerosol hair sprays. The odor problem which this solvent presented in the past is said to have been overcome.

Incorporation of polyvinyl pyrrolidone into shampoos and shave creams is suggested. Its application in tooth pastes is covered by patents held by Colgate-Palmolive Co.

Abstracted from a paper by I. Greenfield, British Oxygen Research & Development, Ltd., London, published in the British edition of the *J. of the Soc. of Cosmetic Chemists*, vol. VIII, No. 4, pp. 196 - 211.

—★—

Du Pont Names Lawrence

A. Hicks Lawrence, Jr., has been named manager of aerosol propellant sales for the Freon Products Division of E. I. du Pont de Nemours & Co., Wilmington, Del., it was announced recently. He succeeds Thomas D. Johnson, Jr., who last month was appointed assistant director of sales for the division.

Formerly manager of specialty products sales for the division, Mr. Lawrence will be replaced by James C. Feldman, who for the past two years had been superintendent of the plants technical section of du Pont's Antioch, Calif., plant.

Mr. Lawrence has held his most recent position for three years. He joined the company in 1940 as an analytical chemist at its Jackson Laboratory, Deepwater Point, N. J. He later became a technical sales representative for "Freon" and in 1951 was named manager of "Freon's" technical sales service section.

A. H. Lawrence

Research Stressed by Filler

Profitable aerosol product research is the major factor in the success enjoyed by Sun-Lac Inc., Newark, N. J., custom loader. The company is the subject of an article published in the November issue of *"Chemical Progress,"* house organ of Union Carbide Chemicals Corp., New York. In 1950 Sun-Lac started by producing and marketing a clear lacquer spray for store windows. Soon it turned to custom filling for companies with established market outlets. Today, the firm formulates and fills over 100 consumer products, many of which were developed in its own aerosol research laboratory. Sun-Lac pressure packaged items include shoe shine, perfumes, room deodorants, hair lacquers, shave creams, car and furniture polishes, and toilet waters. The firm formulates perfume concentrates for pressure packaging with specially denatured ethanol, purchased from Carbide, which actually supplies 95 per cent of all solvents used by the Newark filler.

—★—

New "Freon" Price System

E. I. du Pont de Nemours & Co., Wilmington, Del., recently announced that effective Dec. 26, it will institute a new "one price" policy on all of its "Freon" aerosol propellants, solvents and refrigerants. Under the new system, any particular type of "Freon" compound will be sold at one uniform price schedule, regardless of the end use of the chemical.

According to Joseph C. Hoopes, manager of field distribution for the Freon Products Division, du Pont sales representatives will continue to handle direct sales to aerosol loaders and other specialty accounts.

—★—

Krylon Appoints Smith

John D. Smith has been named mid-west district sales manager of Krylon, Inc., Norristown, Pa., it was announced recently by Richard C. Newbold, vice-president of sales. Mr. Smith will headquarter in Chicago. He was previously associated with George F. Pettinos, Inc.

YOUR GUIDE to Procter & Gamble's line of versatile formulation products!

AMBER GRANULES. A neutral 88%, 42° titer-type soap of exceptional purity and uniformity. Well suited for the preparation of paste or gel-like products because of its high titer. Its granular form makes it ideal for powdered products. Excellent for the preparation of hand cleaners, paste cleaners, polishes, lubricants and coatings.

ES PASTE. A specially developed synthetic detergent whose active ingredient is mainly modified alkyl sulphate. Offers exceptional efficiency and stability over a wide range of operating conditions. Wetting, penetrating, sudsing, dispersing and emulsifying properties make it excellent for the preparation of liquid shampoos, bubble baths, liquid detergents, liquid floor cleaners, insecticides, car washes, emulsion cleaners.

AB GRANULES. A neutral synthetic detergent, wetting and emulsifying agent of the 40% active sodium alkyl aryl sulphonate type. A white product that can be used effectively in the blending of bubble baths, car washes, dishwashing compounds, dairy cleaners, insecticides, laundry detergents, rug and upholstery cleaners.

Kyro EO A neutral nonionic synthetic detergent of the 100% alkyl-phenol ethylene oxide condensate type. A light-colored liquid with a clean, pleasant odor. Its superior detergent, wetting and emulsifying properties offer excellent performance in liquid detergents, sanitizer detergents, self emulsifying solvents, laundry detergents, glass, textile, and dairy cleaners, insecticides, and bottle washing compounds.

WA PASTE. A neutral synthetic detergent and wetting agent whose active ingredient is mainly sodium alkyl sulphate. Excellent sudsing, wetting, emulsifying, dispersing and penetrating properties Ideal for paste and liquid shampoos, bubble baths, liquid detergents, liquid car washes, liquid floor cleaners, insecticides, glass cleaners, rug and upholstery cleaners.

IVORY BEADS. A medium titer, neutral white soap of exceptional purity and quality. Well suited for compounding products where a mild but effective soap is required—hand soaps, polishes, protective creams, dishwashing compounds and paper coatings.

K LIQUID. A modified, highly concentrated ammonium lauryl sulphate —modified for increased sudsing and mildness. Exceptionally low cloud and pour points. Highly fluid and easy to handle. Ideal for clear liquid shampoos and liquid detergents where high foaming is required.

Procter & Gamble's Products Research Department will gladly supply you with information on how you can save time and money when you formulate with Procter & Gamble products. You can also get technical help in connection with their use by writing to:

Procter & Gamble

BULK SOAP SALES DEPARTMENT,
P. O. BOX 599,
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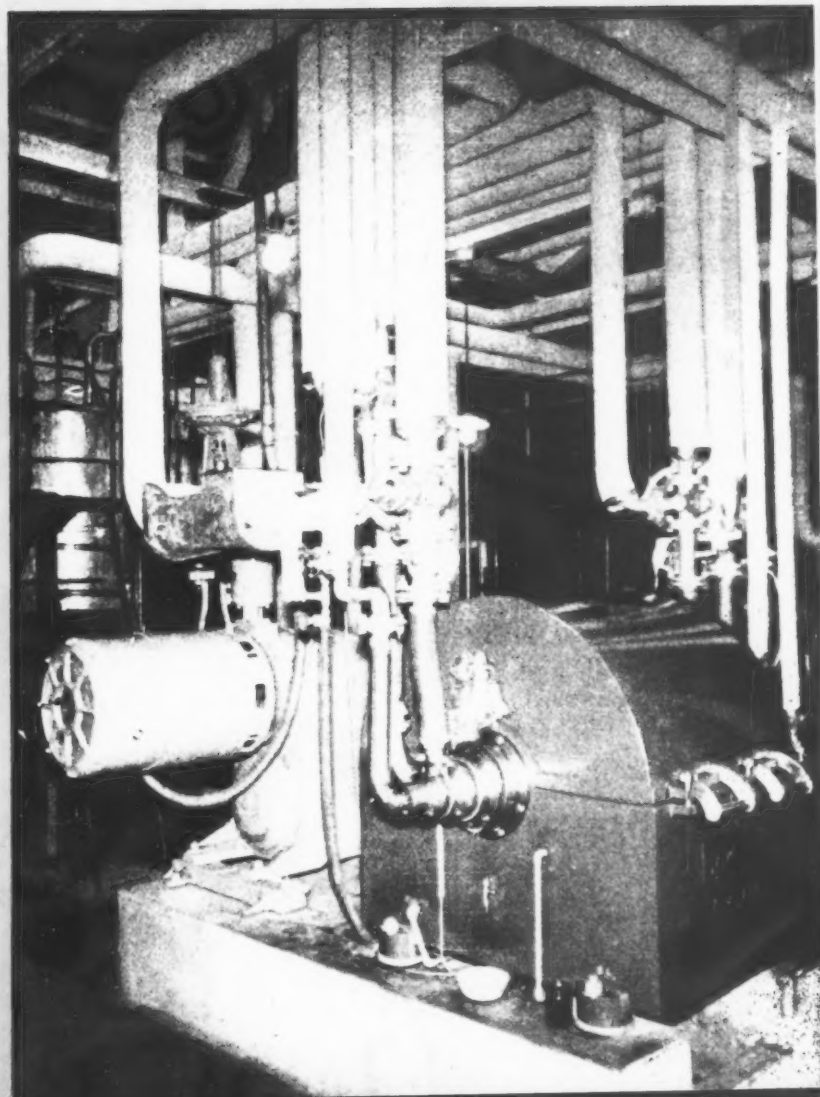
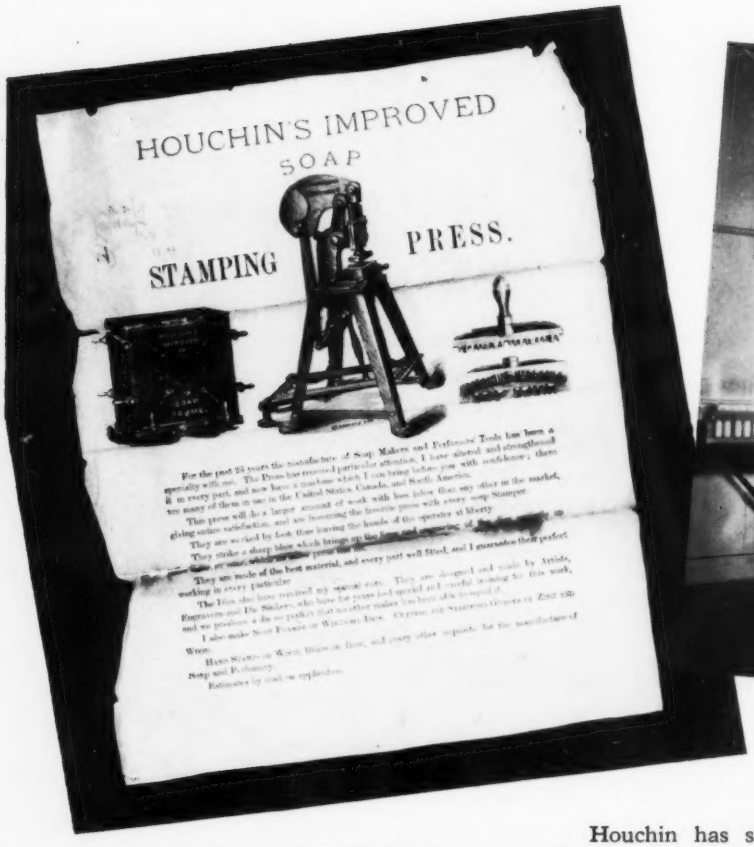


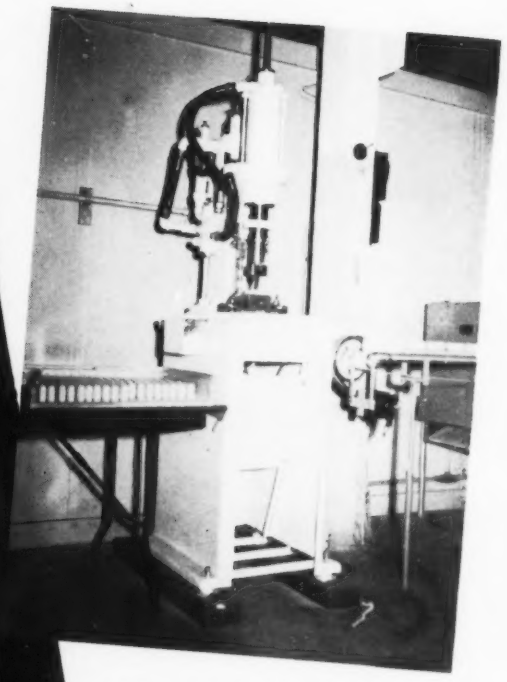
Continuous soap making in Japanese plant using "Soaprazon" contactor of Podbielniak, Inc., Chicago. In typical installation at Dai-Ichi Kogyo Seiyaku Co., two centrifugal countercurrent units are employed. One brine washes kettle soap and extracts glycerine; the other separates soap from niger. See article beginning on page 135.)

HOUCHIN

has made Soap Machines for Over a Century



Houchin advertisement circa 1840, featuring stamping press, soap frame, and hand die.



Modern Houchin Safety Air Press.

Houchin has supplied the world's leading soap manufacturers with equipment for well over 100 years.

The complete Houchin line includes Kettles, Crutchers, Amalgamators, Mixers, Slabbers, Mills, Plodders, Chippers and Powder Mills, Laundry Soap Cutters, Toilet Soap Cutters, Presses and Kindred Machines.

Practically all basic soap making machinery today is derived from the original Houchin inventions.

Look to Houchin for further revolutionary improvements.

HOUCHIN MACHINERY CO., INC.

HAWTHORNE, NEW JERSEY, U.S.A.

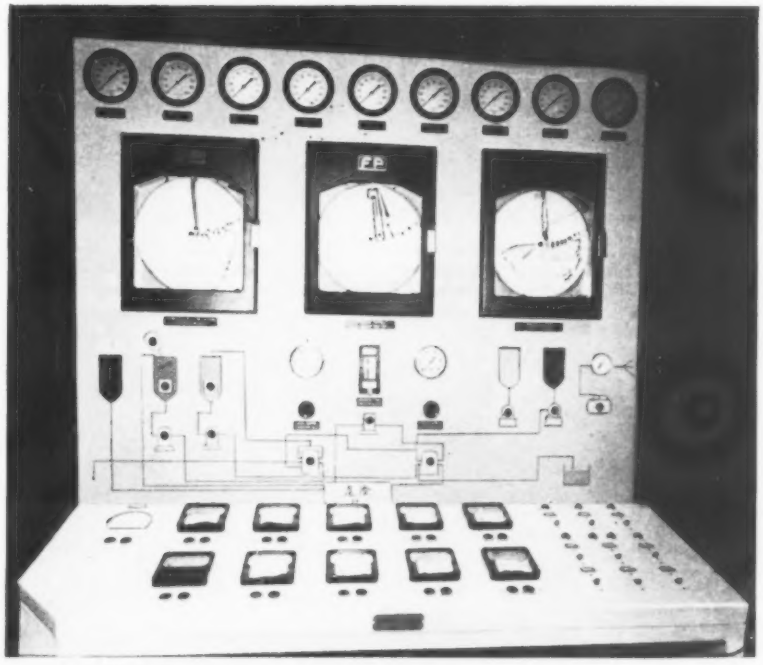
Continuous Soap Making

Installations based on centrifugal contactors combine flexibility of batch method with efficiency and the ease of continuous processing

SOAP making installations based on centrifugal continuous processing equipment can combine the flexibility of the batch method with the efficiency and ease of automation, according to Podbielniak, Inc., Chicago makers of centrifugal contactors.

The Podbielniak multi-stage countercurrent centrifugal, "Soaprazon" unit used in the continuous washing and finishing of soap, consists of a horizontal rotor, pressure tight, which is rotated on its axis. Centrifugal forces ranging from 2,000 to 5,000 times gravity (depending upon rotor diameter and r.p.m.) ensure high extraction efficiency and phase separation. Controlled orifice design permits intimate mixing of soap and brine phases.

In a typical operation using two contactor units kettle soap is pumped and metered into the centrifugal extractor, where it passes countercurrently to brine wash of correct concentration. Soap and brine are intimately mixed and separated many times inside the rotor. Efficiency of glycerine extraction by this equipment is said to equal at least four theoretical stages. Spent lye leaves the extractor as the heavy liquid phase and is conveyed to the glycerine recovery system. Curd soap from the extractor is passed into a reaction chamber equipped with paddle type mixers, where it is continuously fitted for correct separation of neat and niger phases. Type and amount of fitting solution de-

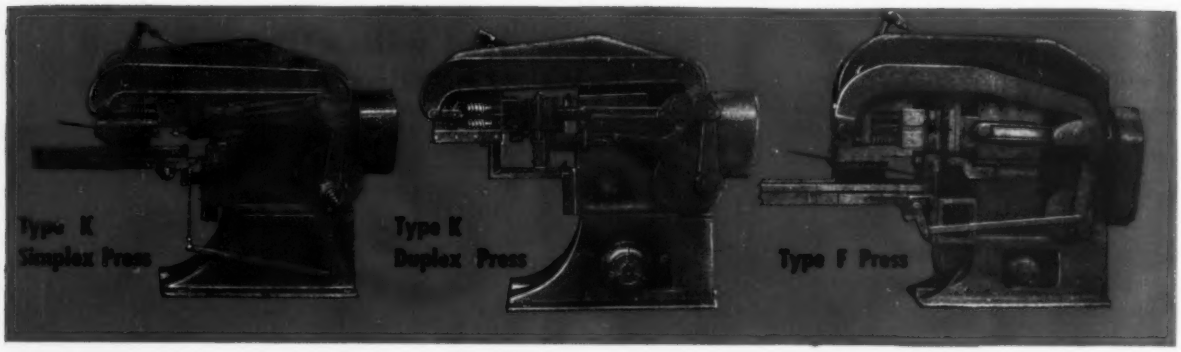


Top: Graphic control panel used at Dai-Ichi Kogyo Seiyaku Co. soap works in Japan with Podbielniak "Soaprazon" contactor. The contactor, shown in lower photograph is a centrifugal countercurrent unit for continuous washing and finishing of soap.

JONES

Automatic Soap Presses

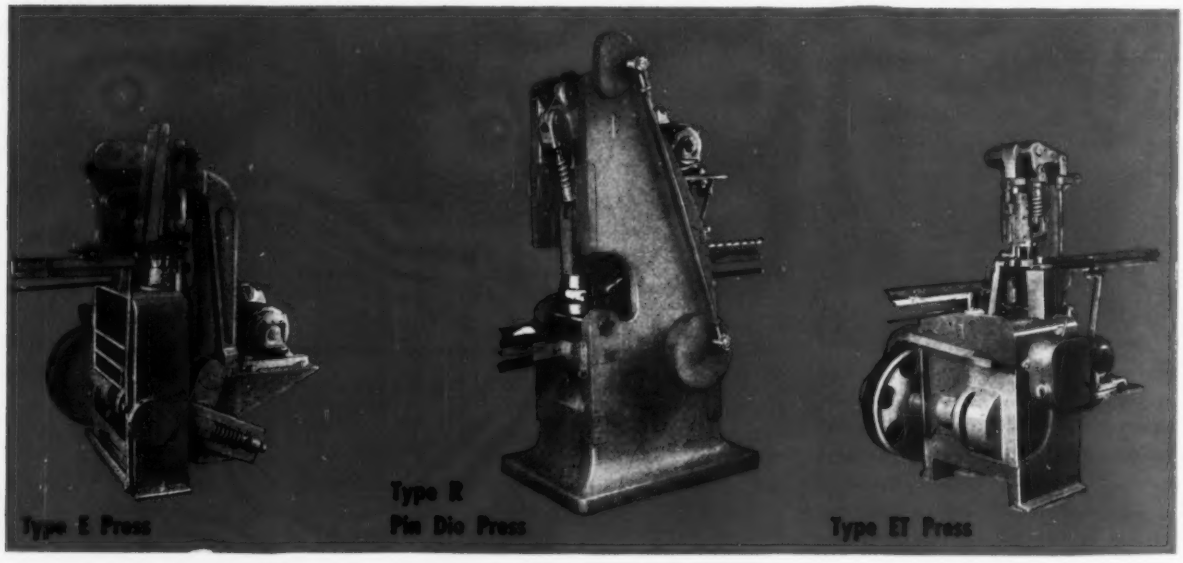
JONES PRESSES, with their exclusive, patented *toggle motion,* have become the standard throughout the world wherever high production, high quality, and perfection of finish are paramount considerations. Standard Jones Presses illustrated here meet all soap pressing requirements. A Jones Toggle Operated Soap Press will improve the appearance of your product, increase your production, reduce your costs. Write today for complete information.



For toilet or laundry soap cakes of any shape (except highly convex cakes) with side band. Speeds of 120-140 cakes per minute.

Applications same as Type K Simplex. Presses two cakes simultaneously. Speeds up to 250 cakes per minute.

For large toilet or laundry soap cakes. Available in Simplex or Duplex Models, pressing one or two cakes per stroke.



For small toilet soap cakes (1½ oz. or less). Speeds up to 200 cakes per minute.

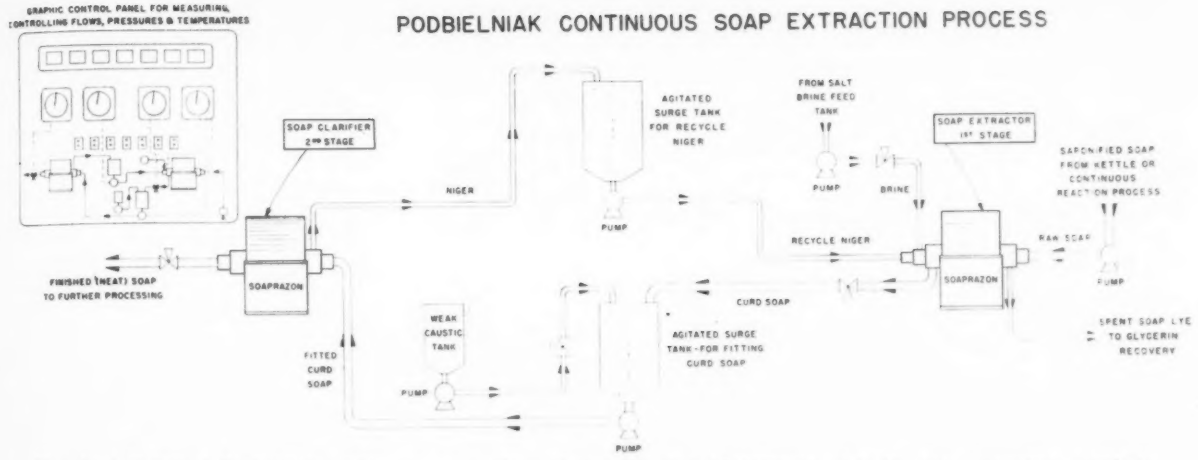
For toilet soap cakes of unusual shape, oval cakes, or cakes having highly convex faces, with or without side band. Speeds up to 100 cakes per minute.

For small toilet soap cakes with side band. Speeds up to 120 cakes per minute.

R. A. JONES & CO., INC.

P. O. BOX 465, CINCINNATI, OHIO

Cartoners — Case Packers — Soap Presses



Flowsheet of typical Podbielniak continuous soap making plant shows two "Soaprazon" units for soap extracting, clarifying.

pends on the characteristics of the curd soaps. The fitting tank is sized to allow about one-half hour retention time for the curd soap, based on maximum rated throughput for the entire installation.

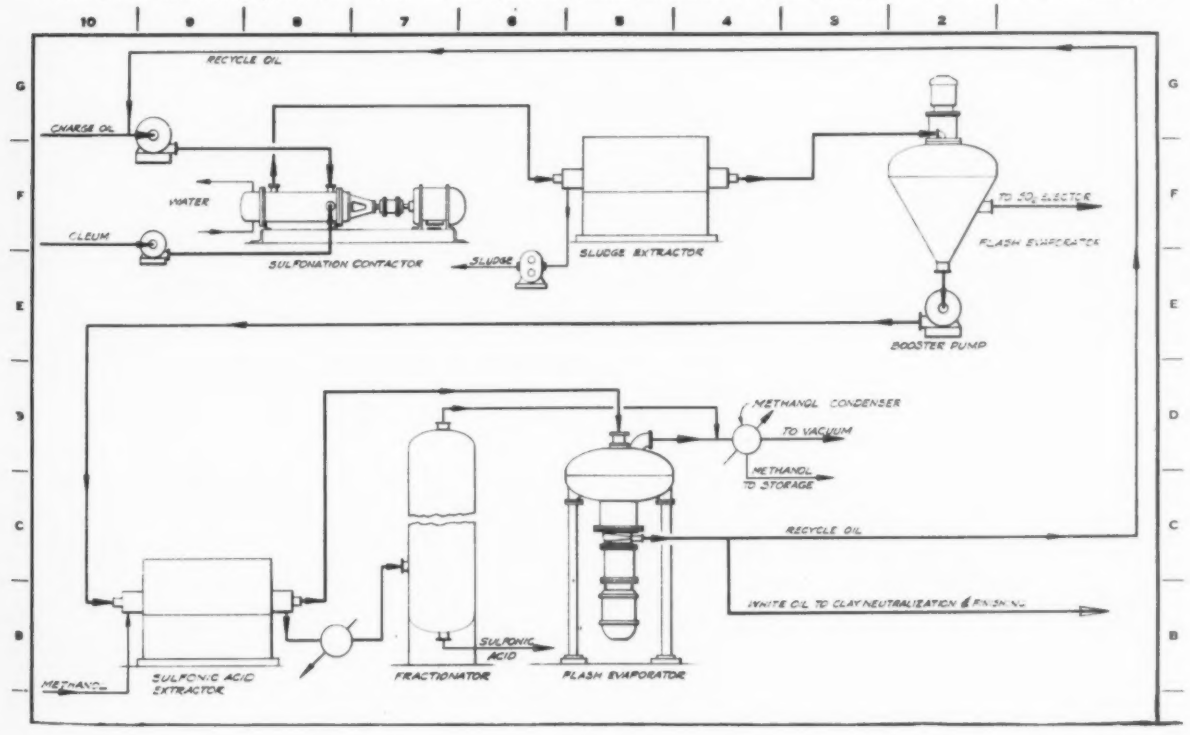
The fitted curd soap is pumped through a centrifugal clarifier, where the niger phase is separated from the neat soap phase. Similar in design to the extractor, the clarifier features an adjustable point of inlet for the fitted curd soap, which broadens the range of soaps that can be handled.

Contactors are driven by variable speed drive units permitting operation at speeds up to 2,400 rpm. Adjustment of the brine wash and fitting solution concentrations is accomplished by continuous blending equipment and provision is made for a rapid change in phase ratio, if indicated by a change in the characteristics of the curd soap.

Accurate indication and control of liquid level in the soap fitting and recycling tanks presents a problem owing to the high viscosity of the material and to the soap skin solidification around the measuring device. The difficulty was solved with capacitance type liquid level controllers with "Teflon" coated electrodes made by the instrument division of Robertshaw-Fulton Controls Co., Chicago.

A soap plant based on con-

Flowsheet of sulfonation process for white oil incorporates centrifugal contactor. Final product is used as detergent additive.



MECCANICHE MODERNE

CORSO SEMPIONE, 51

BUSTO ARSIZIO (ITALY)

"SABIZ" SPRAY DRYING PLANT

"BALLESTRA" Patent

Manufacturing Characteristics

Atomization spray nozzles.
Adaptable to three modes of operation: parallel flow, countercurrent and mixed flow.
Product discharged at room temperature; eliminates agglomeration.
Free discharge of product without use of auxiliary equipment.
Direct or indirect utilization of gases obtained by the complete combustion of fuel oil or natural gas.
One main panel for control and operation.
Automatic continuous perfuming possible.
Can spray dry heat sensitive products.

Standard Outputs

From 250 Kgs. per hour up to 3000 Kgs. per hour and more, if required.
Efficient operation of the plant results in substantial savings.

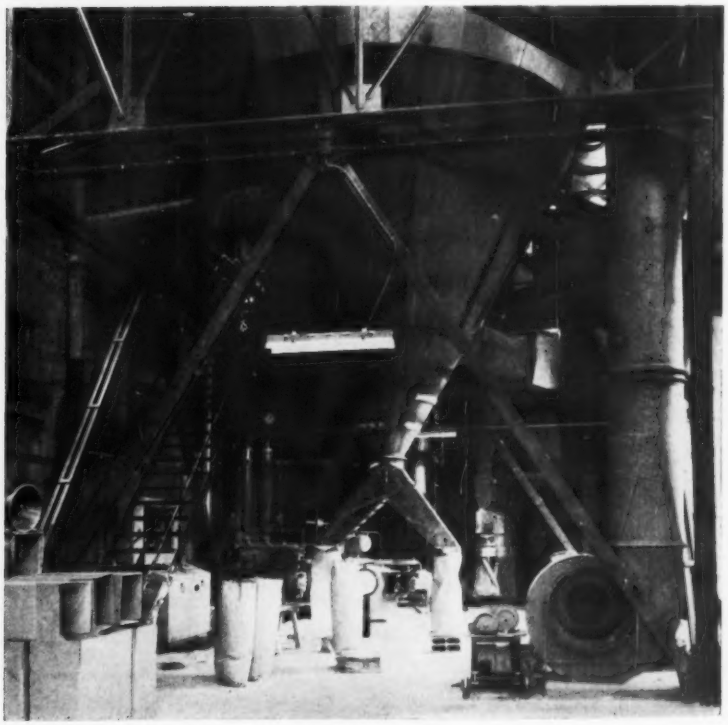
Physical Characteristics of the Dried Products

From the same slurry, merely by adjusting some valves, it is possible to get:
Dried products such as hollow beads or fine powder.
Crystallized products such as beads or granules.

Adjustable to a wide range of specific gravities

from the same slurry. If used for synthetic detergents, this plant can be operated automatically in connection with our continuous sulfonation plant "SOLFON."
Without any obligation to you, our technical staff, research laboratory and experience are at your disposal: let us solve your production problems.
Please don't hesitate to ask for references, analyses, offers, samples, visits to factories equipped with our plants, etc.

500 Kgs. per hour "SABIZ" Spray Drier in operation at **HUILERIES ANTONIN ROUX & SAVONNERIES J. B. PAUL — MARSIGLIA (FRANCE).**



U. S. Sales Representatives:
AMERICAN ASSOCIATES
520 Fifth Ave., New York 36, N. Y.

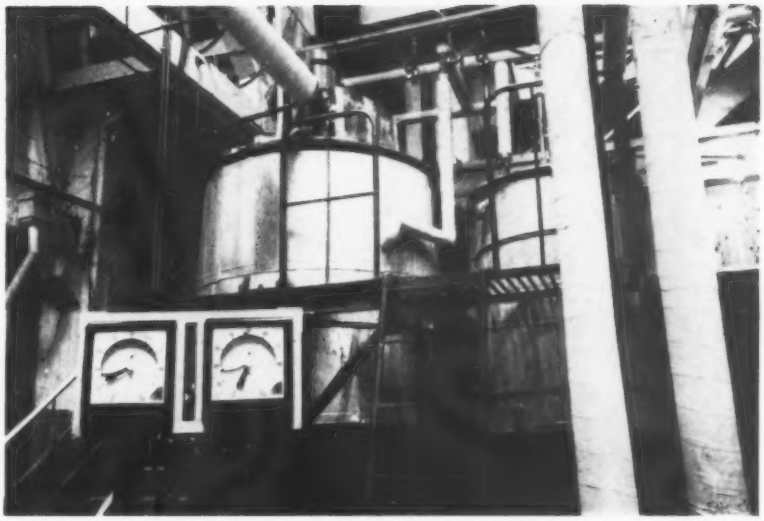
tactors and having an approximate capacity of 10,000 to 15,000 pounds of neat soap per hour requires about 20 to 30 minutes starting time. The hourly flow rate required to bring the installation to operating conditions is in the vicinity of 1,000 pounds. Therefore, only 500 to 1,000 pounds of soap need be reworked because of starting operations. Shut down of the plant also takes 20 minutes to half an hour.

Manufacture of detergent additives by white oil sulfonation is another continuous process where the centrifugal contactor offers efficiency combined with compactness and economy. One of their latest applications is in the removal of phenol from coke oven waste. Podbielniak makes these units in capacities ranging from 200 cc per minute to 60,000 gallons per hour.

★

New Triangle Packer

A new machine designed to package all types of powders in amounts ranging from one ounce to 10 pounds was introduced recently by Triangle Package Machinery Co., 6633 West Diversey Ave., Chicago 35. Designated model "U-12 Auger Packer," the new unit is fully automatic and operates at speeds of up to 30 packages per minute. Almost any style or shape package may be used and packing pressure is adjustable from a loose fill to a hard pack, according to the manufacturer. The machine may also be equipped with an automatic package transport conveyor when filling rigid containers. Speeds of up to 50 packages per minute are then obtainable.



Liquid level in curd soap fitting tank (left) and niger recycle tank is accomplished by capacitance type controllers made by Robertshaw-Fulton Controls Co., Chicago.

★

Blockson Bulletins

Blockson Chemical Co., Joliet, Ill., recently announced availability of a separate technical bulletin for each of 17 of the firm's products. These include phosphates, fluorides, surfactants and a number of basic chemicals.

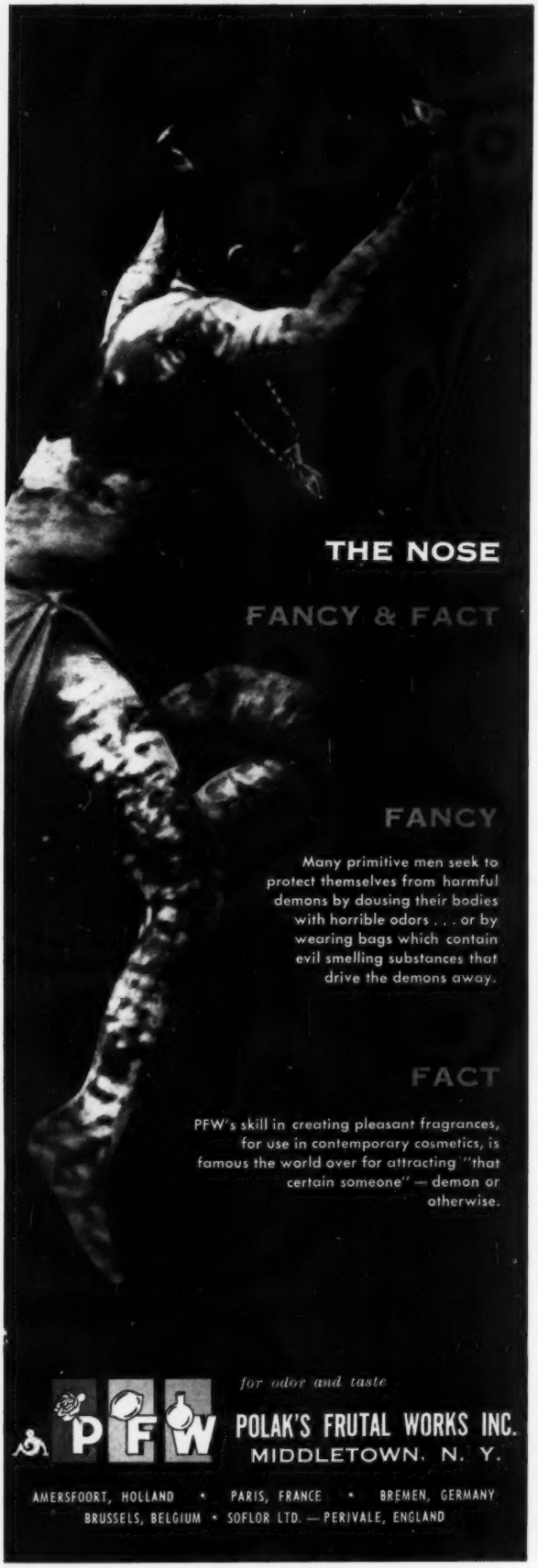
★

Containers Filled in Case

A new liquid filling machine offered by MRM Co., Brooklyn, N. Y., fills containers right in the shipping case. Uncasing and unscrambling phases are eliminated. Containers are supplied to the filler nested upright in the cases. They are handled in that position by the gravity-vacuum machine which has 12 heads arranged in three rows of four spouts. The unit is adjustable to containers of various sizes.

One of these MRM machines fills short runs of household ammonia at the Bilco Chemical Co., Brooklyn. Labeling and capping are done by hand in this instance, but for high production runs automatic operation is possible. The machine is mounted on casters for easy mobility.

New MRM liquid filling machine that fills containers right in their shipping cases. Filling unit is a gravity-vacuum machine which has 12 heads arranged in three rows of four spouts each.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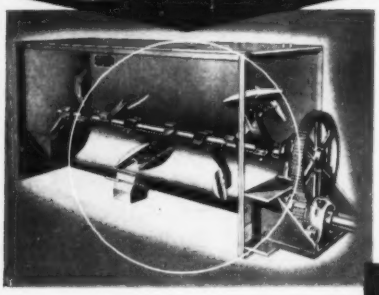

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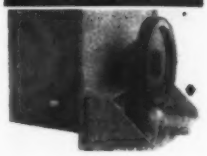

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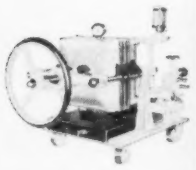

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Book Reviews

New Cosmetic Book Covers Everything From Aerosols through Shaving Creams

Cosmetics Science and Technology, , editor Edward Sagarin; editorial board: H. D. Goulden, Emil G. Klarmann, Donald H. Powers. Published by Interscience Publishers, Inc., New York, 1957. cloth bound, six and one half by nine and three quarter inches, pp. 1433, price $25.00.

The girth of this tome is matched by the importance and diversity of its contents. Claimed to be the first collective volume in the history of cosmetics it embraces 53 chapters authored by 61 men and women, each specialized in certain phases of the vastly complex field of cosmetics or allied sciences. The huge quantity of material presented is subdivided into five parts: I. The Scope of Cosmetics; II. Toilet Preparations, occupying 800 pages; III. Manufacture and Technology, which includes chapters on plant layout, equipment, quality control, performance evaluation, emulsification, etc.; IV. Physiological Considerations; and V. Legal Considerations. An index of trade names, and author and subject indices are appended.

Part II on toilet preparations deals with 35 different cosmetic and allied product groups. The chapter on shampoos, written by Donald H. Powers, treats history, function, types and forms (solid, liquid, cream), formulas, and raw materials. The latter covers vegetable oils and soaps, a wide range of synthetic detergents, and additives including optical bleaches, antibacterials, sequestrants, foam builders, and many others. Evaluation of shampoos for detergency, foaming characteristics, and a number of other important properties is discussed.

Herbert H. Guest's chapter on shaving soaps and creams starts with a short history of these products. Production methods and formulas for solid shaving preparations, lather shaving creams, and brushless products are given. The patent literature is briefly dealt with, including a German patent granted in 1937 which calls for incorporation of polyvinyl alcohol in a soap based shaving cream.

A lucid and well organized chapter on aerosol cosmetics is contributed by H. R. Shepherd. Aerosols are defined and classified into space and surface sprays and aerated foams. The historical background of pressure packaging is traced from 1899 when a patent was granted to Helbing and Pertsch, who used ethyl and methyl chloride as propellants. Next came patents granted to Gebauer in 1901 and 1902, describing a pressurized receptacle from which a liquid product is ejected as a spray. An aerosol perfume dispenser was patented by R. W. Moore in 1903. From these early beginnings the patent history is traced to the aerosol foam patent granted in 1953 to Spitzer, Reich and Fine.

The principle and mechanism of the pressure package is explained and illustrated. Containers, valves, propellants, and the concentrate are discussed separately. A short paragraph is devoted to pertinent legislation. The pages devoted to production describe the cold filling and pressure filling method. A general approach to formulation must take account of at least nine factors: spray pattern, foam pattern, temperature at time of use, reactivity, solubility, corrosion, stain, low-temperature compatibility, and odor. With these basic factors in mind the formulation of individual aerosol formulations is considered. Formulas are given for hair products, shave creams, shampoos, oral preparations, nail preparations, and a number of other products. The official C.S.M.A. glossary of terms used in pressure packaging concludes the chapter.

—★—

Reddish, New Edition

Antiseptics, Disinfectants, Fungicides, and Chemical and Physical Sterilization, edited by George F. Reddish, second edition, Lea & Febiger, Philadelphia, Sept. 1957. Cloth bound, nine and one half by six inches, pp. 975 pages, 67 illustrations, price $15.00.

Since 1954 when the first edition of this collective volume appeared the field of antimicrobial agents has undergone advances and expansion which have necessitated an enlarged and revised edition. Three new chapters have been added dealing with sterility tests and methods of assuring sterility; methods of testing sanitizers and bacteriostatic substances; and ultraviolet irradiation as a germicidal agent. The chapter on iodine now includes a discussion of iodophors and deals with the use of iodine solutions in catastrophies. A new section on the official evaluation of phenolic disinfectants and new information on the compatibilities of certain agents with a representative quaternary ammonium compound are included in the pertinent chapters.

Like its predecessor this book is a useful reference text to anyone interested in antimicrobial agents and their applications.

—★—

Why People Buy

"How to Predict What People Will Buy" by Louis Cheskin, compiled and edited by Van Allen Bradley. Published by Liveright Publishing Corp., New York. September 1957. pp. 241, cloth bound, price $5.00.

The author of this volume is director of Color Research Institute, an organization engaged in motivation research applied to mar-

(*Turn to Page* 171)

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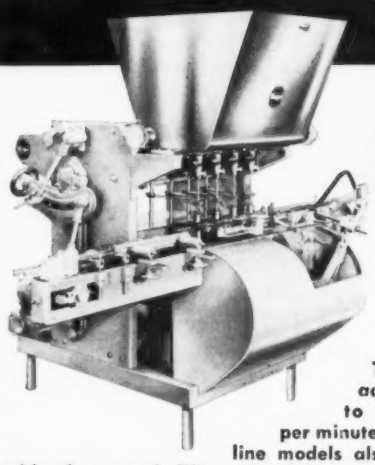

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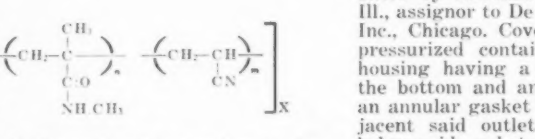
NEW Patents

The data listed below is only a brief review of recent patents pertinent to the readers and subscribers of this publication. Complete copies may be obtained by writing to the publisher of this magazine. MacNair - Dorland Co., 254 W. 31st Street, New York 1, N. Y., and remitting 50c for each copy desired. For orders received from outside of the United States the cost will be $1.00 per copy.

No. 2,806,869. Process for the Conversion of Soaps of Unsaturated Into Soaps of Saturated Fatty Acid, patented by Werner Stein, Dusseldorf-Holthausen, and Helmut Hartmann, Dusseldorf, assignors to Henkel & Cie, G.m.b.H., Dusseldorf. A process is patented for converting unsaturated fatty acids into saturated fatty acids which comprises reacting alkali metal soaps of said unsaturated fatty acids with a caustic alkali solution in the presence of water at temperatures ranging from 300-450° C., maintaining in the reaction vessel during the reaction a pressure of at least 100 kg./sq. cm., and using a caustic alkali in an amount of 80-200% of the stoichiometrically necessary amount.

No. 2,805,205. Detergent Compositions for Laundering Textile Fabrics, Containing a Copolymer of Acrylonitrile and an Acrylamide, patented by George P. Touey and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Co., Rochester, N. Y. Claimed under this patent is a detergent composition comprising a detergent selected from the group consisting of the non-ionic detergents and the organic anionic detergents, and a copolymer of N-methylmethacrylamide and acrylonitrile, the copolymer having the structure



wherein the ratio of n to m lies in the range of 9:1 to 7:3, and X=50 to 1000, the ratio by weight of copolymer to detergent being in the range from 1:99 to 25:75.

No. 2,805,204. Absorbent Sweeping Composition, patented by George Howard Adams, Jr., Center Valley, Pa. A non-oleaginous preparation is described for absorbing oil, grease and the like from floors and other surfaces comprising weathered Portland cement kiln flue dust ground substantially entirely to particle size which will pass a 5 mesh sieve and be retained on an 80 mesh sieve with a thin surface coating of Portland cement adhering to the particles.

No. 2,805,003. Valve Assembly for Aerosol Type Containers, patented by John E. Ayres, Springfield, N. J., assignor by direct and mesne assignments to Oil Equipment Laboratories, Inc., Elizabeth, N. J. The patent describes a valve assembly for a pressurized container wherein the top of the container has an opening therein with upstanding side walls extending around said opening and an annular flange extending inwardly and downwardly from said side walls and defining said opening, said flange forming a valve seat, the improvement which comprises a valve member of a material which is stretchable and compressible, said valve member having an outer edge and a solid central portion with at least one aperture located between its outer edge and its solid central portion and a retaining member of rigid material frictionally engaging with upstanding side walls extending around an opening in the top of a container, said retaining member also engaging with and holding the outer edge of the valve member in a fixed position relative to said side walls with the solid central portion of said valve member in engagement with the lower end of an annular flange extending inwardly and downwardly from said side walls and defining the opening in the container.

No. 2,805,927. Selective Contact Herbicidal Compositions, patented by Philip C. Hamm, Webster Groves, Mo., assignor to Monsanto Chemical Co., St. Louis, Mo. This patent teaches a method of selectively killing crab grass growing in perennial lawn grass plots which comprises applying to said lawn grass plots a composition comprising from 0.5% to 10% by weight of thioacetamide and from 0.1% to 5% by weight of a surface active agent admixed with a fluent carrier, at the rate of 4 to 70 pounds of thioacetamide per acre.

No. 2,806,739. Valve and Removable Spray Head Therefor, patented by Leonard B. Drell, Glencoe, Ill., assignor to De Mert & Dougherty, Inc., Chicago. Covered is a valve for pressurized containers comprising a housing having a restricted inlet at the bottom and an outlet at the top, an annular gasket in said housing adjacent said outlet, a sealing means below said gasket, said sealing means having an annular rim and a depending cup, a trough in said cup, means normally acting against said sealing means to press said rim into sealing relationship with said gasket and thereby close the said outlet, a spray head having a depending tube passing through the opening in said gasket and being seated on said cup over said trough, the external diameter of said tube being less than the internal diameter of said cup and the length of said trough, said tube having a meter hole in its bottom wall normally positioned over said trough, said spray head having a restricted discharge orifice, the area between said restricted inlet and said meter hole constituting a first expansion chamber, the area between said meter hole and said restricted discharge orifice constituting a second expansion chamber, whereby downward movement of said spray head forces said tube against said sealing means and thereby moves it and said annular rim out of sealing engagement with said gasket to provide communication between said first and second expansion chambers.

No. 2,804,420. Insect Toxicant, patented by Albert A. Danish and Rex E. Lidov, Denver, Colo., assignors to Shell Development Co., New York. Claims under this patent cover as a new chemical compound, 1,2,3,4,6,9,-10,10 - octachloro - 1,4,4a,5,6,7,8,8a - octahydro - 1,4,5,8 - dimethanonaphthalene having when substantially pure and in crystalline form a melting point of 152.5° C to 154° C.

Also claimed is a pesticidal composition of matter comprising 1,2,3,4,6,9,10,10 - octachloro - 1,4,4a,5,-6,7,8,8a - octahydro - 1,4,5,8 - dimethanonaphthalene having when substantially pure and in crystalline form a melting point of 152.5° C. to 154° C., and a pesticide adjuvant therefor.

No. 2,804,391. Mothproofing and Waterproofing Composition, patented by Vincent J. Keenan, Ardmore, Frank J. Gozlow, Philadelphia, and Robert B. Doan, Drexel Hill, Pa., assignors to Atlantic Refining Co., Philadelphia. Described is an improved mothproofing and waterproofing composition for treating fabrics consisting essentially of an aqueous emulsion containing small amounts of a mixture of a mothproofing concentrate consisting of about 25 percent by weight of dichloro-diphenyl-trichloroethane, 70 percent of xylene, and 5 percent of an anionic emulsifier consisting essentially of an amine salt of an alkyl aryl sulfonic acid and a waterproofing composition consisting of about 67 percent of water, 24 percent of paraffin wax, 1 percent carnauba wax, and 8 percent of an aluminum salt.

No. 2,802,771. Fungicidal Compositions Containing Salts of a Hydroxyquinoline and the Method of Preparing Same, patented by Ellis K. Fields, Chicago, Ill., and Roger W. Watson, Highland, Ind., assignors to Standard Oil Co. Chicago. A method is disclosed of organic solvent solubilizing a heavy metal salt of 8-hydroxyquinoline comprising mixing said salt with a hydrolyzed reaction product of a phosphorus sulfide and an olefin polymer, while heating said mixture at a temperature of from about 200° F. to about 400° F. and maintaining said temperature for a period of from 10 minutes to about 120 minutes after all said incremental salt of 8-hydroxyquinoline has been added, said hydrolyzed reaction product of the phosphorus sulfide and the olefin polymer being prepared by reacting said olefin polymer with from about 1% to about 50% of a phosphorus sulfide at a temperature of from about 200° F. to about 600° F., and hydrolyzing the resultant reaction product at a temperature of from about 220° F. to about 500° F.

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Statement required by the Act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233) showing the ownership, management, and circulation of Soap & Chemical Specialties, published monthly at New York, N. Y. for October 1, 1957.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Mac Nair-Dorland Co., Inc., 254 West 31st St., New York 1, N. Y.; Editor, Frank J. Reilly, 254 West 31st St., New York 1, N. Y.; Business Manager, Ira P. MacNair, 254 West 31st St., New York 1, N. Y.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

Mac Nair-Dorland Co., Inc., 254 West 31st St., New York 1, N. Y.; Ira P. MacNair, 254 West 31st St., New York 1, N. Y.; Grant A. Dorland, Ocala, Florida.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed through the mails or otherwise, to paid subscribers during the 12 months preceeding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

signed IRA P. MAC NAIR, Business Manager

Sworn to and subscribed before me this 20th day of September, 1957.

(SEAL) EARL AHERN

(My commission expires March 30, 1958.)

Products and PROCESSES

Powdered Polishing Wax

A polishing wax in powder form is based on a mixture containing 50 to 70 per cent ozokerite. With a solvent this wax mixture is indirectly heated in a jacketed kettle and kept in a fluid state. With the aid of a preheated gas it is then sprayed into a nonheated chamber. Dutch patent 80,341, Harm Moes trading as Chemische Fabriek "De Komeet." Through *J. of Am. Oil Chem. Soc.*, Oct. 1957, p. 522.

★

Test Soap-Syndet Mixtures

Maximum detergency of alkylbenzol sulfonate mixtures with various types of soaps was tested and found to coincide with maximum sulfonate content. Varying amounts of dodecyl benzene sulfonate were combined with soaps of colza oil, tallow and coconut oil. Detergency of these combinations was measured with the "Launder-O-Meter," operating with a five gram/liter concentration on soiled cotton at 70°. In distilled water, soap and synthetic do not appear to influence each other very strongly. However, maximum washing power was found to coincide with maximum syndet content. In hard water, results showed the same trend but differences were not as marked. *J. Profu. Oli Minerali, Grassi e Saponi, Colori e Vernici* 34, 230-231 (1957), through *J. of Am. Oil Chem. Soc.*, Oct. 1957, p. 524.

★

Antistatic Agent

Availability in pilot plant quantities of ethylsulfonylethanol was announced last month by Pennsalt Chemicals Corp., Philadelphia 2, Pa. The new compound is suggested for use as antistatic agent, humectant, intermediate, and selective solvent for polar compounds. Powerful antistatic action combined with low toxicity and water solubility are claimed for ethylsulfonylethanol. These characteristics suggest its incorporation in consumer specialties. It is said to be suitable for household or institutional use as an antistatic agent on "Orlon", "Saran", "Dacron" and "Acrilan".

Preliminary experiments show promise of incorporating ESE into water emulsion or paste wax formulations to reduce shock hazard and dust attraction. Derivatives of ethylsulfonylethanol have potential uses as herbicides, defoliants, and pesticides.

A 14-page bulletin describing the new compound, its properties, and applications, is available from Pennsalt.

★

'Siponol' for Water Economy

Water evaporation is substantially reduced by a monomolecular film of "Siponol EGH" according to a recent announcement by American Alcolac Corp., Baltimore, who is offering samples for field tests. The new product is a combination of fatty alcohols. It comes as a five-pound slab, together with accessory attachments for anchoring on the surface of the water. A monomolecular film, one ten-millionth of an inch thick, is established automatically by spreading radially from the slab until confined by a physical barrier. The remaining portion of the slab acts as a reservoir for mending breaks in the film and for replenishment. The material is said to be resistant to bacterial attack which adds to the lasting properties of the film.

★

New Sole Emulsifier

A nonionic, vegetable oil-derived emulsifier is described in a technical bulletin published last month by Sole Chemical Corp., 27 East Monroe Street, Chicago 3. "Sole-Onic PGE" used as primary emulsifier in the pressure packaging of water containing aerosol formulations is said to give good corrosion control and emulsion stability. Being nonionic, the compound is compatible with either anionic or cationic materials, provided the pH does not exeed 10.5-11 and does not drop below 5-5.5. "Sole-Onic PGE" is also compatible with most of the usual propellants.

Sole suggests the new surfactant for formulation of numerous specialties in which oil-in-water surface activity is required. It is claimed to increase the wetting and "sticking" power of water soluble and oil emulsion pesticide formulations.

★

New Detergent Acids

Three new acids for preparation of concentrated, low cloud point, liquid industrial detergents were introduced last month by Tennessee Corp., Atlanta 9, Ga. The new products are identified as "Tenn-Acids" 820, 873, and 864.

Samples and descriptive literature available from the company's marketing research and development department.

★

Flea Control Chemicals

Residual sprays such as two per cent chlordane, 0.5 per cent dieldrin, five per cent DDT, or 0.5 per cent lindane are suitable for indoor flea control in infested premises, according to a technical bulletin published recently by the National Pest Control Association. Applied at the rate of one-half to one gallon per 1,000 square feet of floor space these compounds are useful where resistance has not developed. In the presence of resistant fleas, two per cent malathion (refined grade) or 0.5 per cent "Diazinon" are suggested. Odor, fire hazards, staining, are among factors which must influence choice of material and formulation for indoor use. Considering the importance of fire hazard, oil sprays may be most suitable for indoor application. DDT is the insecticide of choice in the absence of resistance; malathion where resistance exists. Sleeping places of pets may be dusted lightly with five per cent

(*Turn to Page* 171)

How gleaming aluminum buildings rise from red mud

From Babel onward, men have held the vision of ever brighter, ever lighter towers soaring to the sky. Modern metals provided practical substance for the old dreams . . . look around at what's come true so recently.

High on any list of today's versatile, economical building materials you find aluminum and its alloys. Plate, sheet, rolled forms, extruded sections, tubing, wire, rod—forged, stamped, spun—this wondrous metal answers architects' aspirations, fabricators' requirements and users' needs.

With aluminum, as is so often true, the basic raw material is found in nature wildly mixed with other mineral compounds. Bauxite must be carefully purified to provide alumina, the effective starting point for aluminum. Here again, we're happy to report, major producers turn to Columbia-Southern.

Finely ground bauxite is digested with an alkaline solution, under pressure and heat. Treatment with the alkali separates bauxite into sodium aluminate (just several short steps this side of alumina) and a sludge of impurities called "red mud." No other chemical product known effects this necessary and delicate process so well, so economically as soda ash.

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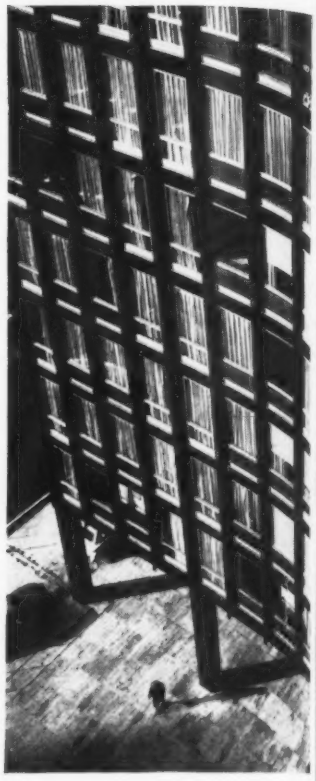

900 Esplanade Apartments, Chicago—a new concept in multi-story exteriors making extensive use of aluminum supplied by Reynolds Metals Company. Architect: Ludwig Mies van der Rohe

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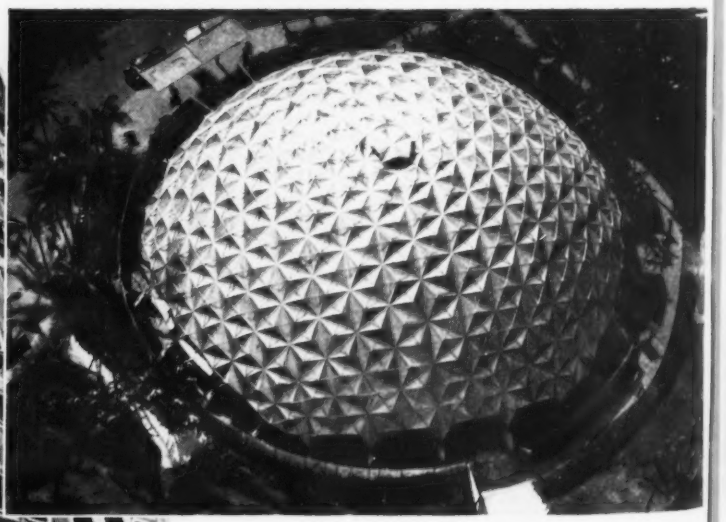
The Alcoa Building, world's first aluminum skyscraper, headquarters of the Aluminum Company of America, Pittsburgh, Pennsylvania. Architects: Harrison & Abramowitz.

Aluminum-domed auditorium, first structure of its kind to be built, graces the Hawaiian Village Hotel in Honolulu. Designed by Kaiser Aluminum & Chemical Corporation.



By E. G. Thomssen, Ph.D.

MAINTENANCE, protection and repair of factory buildings are just as worthy of the plant manager's attention as the care of equipment and machinery. Yet, these phases of industrial housekeeping are frequently ignored or neglected — sometimes with truly catastrophic results. Fire and vandalism are the two major hazards largely preventable by a thorough building maintenance and housekeeping program.

Whoever has experienced fire in a plant knows the distress and cost of such an ordeal. The writer's own industrial experience includes three fires: the first was caused by explosion of a flammable liquid in the laboratory, the second by sparks from a large blaze raging in an adjacent building, and the third by defective wiring. All were costly, but the third was particularly serious, because it occurred in an old plant which had been originally constructed as a mill. The fire caused the floors to collapse and the ensuing mess wrought havoc through five floors. Clean-up and repair operations took many weeks and the insurance collected by the firm hardly compensated for the losses sustained. The shock and distress suffered by those involved cannot be erased from memory.

Preventive measures and the effective use of fire fighting equipment are of equal importance in the elimination or control of major factory fires. The first and foremost preventive measure is good housekeeping, which can be implemented only by periodic and systematic inspection of the premises and the grounds surrounding the buildings. While most organizations have a safety committee to guard against accidents, very few appoint committees or individuals to identify and eliminate fire hazards. In certain communities regular members of the fire department are delegated

Dr. E. G. Thomssen

to make periodic inspections of industrial premises. Such examinations, if thorough and coupled with constructive advice, can be most helpful. Any recommendations made by the representative of the fire department should be carried out promptly.

Accumulations of flammable materials such as cotton waste, rubbish, rags, and paper are fire hazards which good housekeeping will prevent. If such materials are oily and located in out of the way places they are doubly dangerous. A match or cigarette carelessly dropped in the area cluttered by such waste may start a disastrous blaze. Spontaneous combustion is another risk inherent in these accumulations. It is mandatory that such waste be placed in covered metal receptacles which should be emptied every day.

All raw materials and finished stock should be piled under and not too close to the sprinkler heads. All fire fighting equipment should be easily accessible and preferably located in an open area. Lanes leading to mobile equipment storage should be kept uncluttered and clear at all times.

Obviously it is most important that sufficient and adequate fire fighting equipment be available. It is equally important however that employees know how to handle it when needed. A sprinkler system is the backbone of factory fire damage control. It must be regularly inspected to maintain its efficiency. Supplementing the sprinkler system are portable fire extinguishers of the type appropriate for the individual risks. Pails of sand and water and hose lines are additional fire fighting aids.

Various portable extinguishers are available. Types include carbon tetrachloride, compressed carbon dioxide, foam, and sodium carbonate-acid based units, the latter being the most usual. Recently a fluorocarbon type has been added to the list which has proved effective in smothering gas fires. The production head must choose among these models the extinguisher most likely to put out a blaze in his particular plant. Once installed, portable equipment must be inspected frequently and, in the case of the soda-acid unit, refilled at intervals to ensure that it is in working order.

In organizing a fire fighting group, it is important to find a head or chief who has real appreciation of the importance of the task and can pass this feeling along to the group. He must be completely familiar with the operation of all equipment and must have enough time to teach his team. Many fires break out at night. The night watchman who may have to function on his own initiative should certainly be given thorough instruction in what to do in an emergency. Correct handling of the sprinkler system is of utmost importance. It must not be turned off too soon for safety's sake and must not be left on too long because water damage may be more disastrous than the fire.

The value of practice and thorough indoctrination cannot be overemphasized. If discipline is to survive in a crisis it must become second nature. What a thoroughly disciplined crew of amateur fire fighters can do became apparent in

the fire raids on European cities in World War II.

A set of fire prevention rules should be worked out for guidance not only of members of the committee and the watchman, but for all key employees in the organization. Such a code should include warning against smoking, especially in areas where flammable or explosive materials are stored or used. It should also call for care in handling hazardous materials, and emphasize the importance of maintaining electrical and other equipment in good condition. Instructions on when, where and how to turn in an alarm once a fire has been discovered are a must in any such code. The time element in fire control is of utmost importance: a fire that cannot be put out immediately by local means, has all the makings of a disaster.

Evacuation of employees in the event of fire must receive attention. Provisions for their quick and safe escape must be made. Key employees must be acquainted with such arrangements and periodic practice drills should be held where feasible.

For the solution of any special fire prevention problem it may be helpful to enlist the advice of the fire insurance company, the local fire department, or both. These organizations are willing and anxious to act as consultants because they are vitally interested in cutting down losses through fire, which have increased by 6.3 per cent in the first half of 1957 over the corresponding period in 1956.

Protection against vandals is the second major problem facing those responsible for the physical maintenance of a plant. The writer is aware of incidents in which factory windows were maliciously smashed by stone throwing youths. Strikers have been known to destroy property. Arson is a favorite tool of the saboteur. While no general set of rules can be set down for protection against vandalism, a few commonly used precautions are worth noting. If the plant has ample yard room, the erection of a high, strong metal fence of woven wire ("cyclone" type) is advisable. Flood lights or protective lighting with reflectors are valuable if installed in strategic locations. Lights should be distributed to eliminate dark spaces where an intruder might hide. If a guard patrols the grounds, lights should be arranged to shadow him while permitting him to scan the surroundings. Many plants, especially small ones, are not equipped with any outside lighting, which is a serious mistake. Even a small light serves as a deterrent against vandalism and attempts to break into the buildings. Heavy wire screens to protect window glass or the use of wire glass windows is recommended, particularly on the ground floor.

Buildings need care and good maintenance if they are to remain serviceable and safe. Floors, passageways, stairs, roofs, and win-

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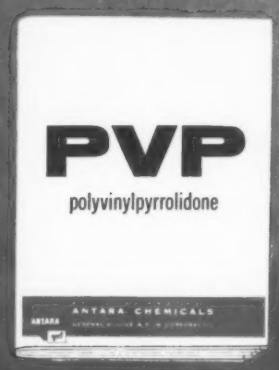

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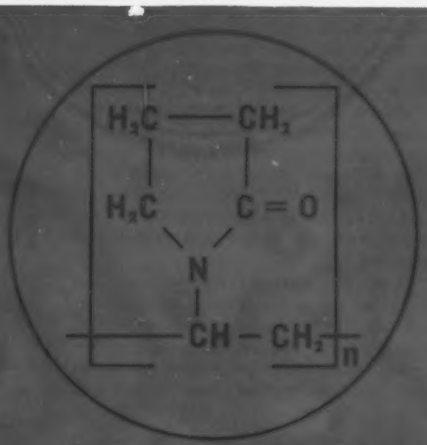

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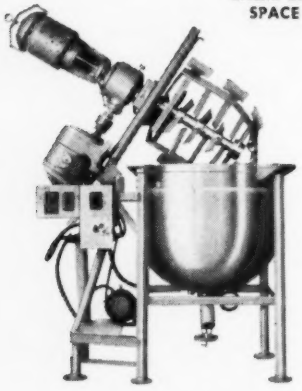

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dows should be inspected regularly to facilitate early detection of defects and prompt repairs. Rough floors are a hazard to loaded trucks. Dark and dingy walls and ceilings cut down lighting efficiency and threaten safety, as well as affecting quantity and quality of production, both directly and by lowering employees' morale. Roofs and windows which are not weathertight may permit water damage, waste heat and cause colds and absenteeism.

A plant which looks run down offends the community in which it is located, makes a bad impression on customers, and cannot command the pride and respect of its employees.

Portable Muller

A LOW-COST portable muller for pilot plant mixing or small scale production is being marketed by National Engineering Co., Chicago. The self contained and versatile unit has a capacity ranging from 2½ to 3½ cubic feet, is mounted on two rubber tired wheels for easy mobility. The finished mix is discharged through a large bottom door set at convenient height. National Engineering will mix test batches.

Antifungal Bacteriostat

NORDA Essential Oil & Chemical Co., New York, offers "S-7", a product said to combine antifungal, bacteriostatic, and antioxidant properties with low oral toxicity and absence of skin irritating properties. Described as bis(2 hydroxy-5 chloro-phenyl) sulfide the compound comes as a non-volatile, non-corrosive, odorless powder, freely soluble in alcohols, ketones, and esters. It is less soluble in aromatic solvents and insoluble in petroleum solvents and water.

More effective against gram positive than against gram negative bacteria, "S-7" has a phenol coefficient ranging from 10 to 120 depending on the test organism. It is said to exhibit strong inhibitory action at concentrations as low as 1 ppm against certain fungi present on the skin.

The product is suggested for incorporation in liquid soaps, shaving cream, athlete's foot preparations, detergents, etc. It may be used as a disinfectant and preservative on textiles, leather, pulp, paint, and other surfaces liable to fungal attack.

★

Armour Product List

Over 180 fatty acids, fatty acid derivatives, and industrial oils are listed in a new catalog published last month by Armour and Co., chemical division, 1355 West 31st Street, Chicago 9. Arranged by chemical groups the products are listed under trade names and their specifications and main uses are given. The catalog is available.

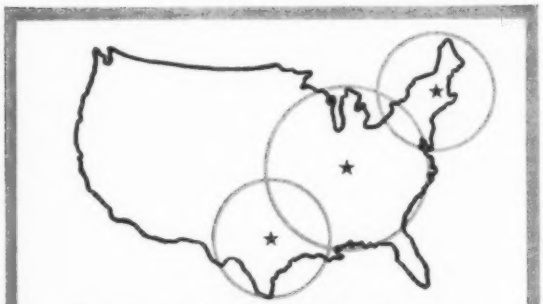
★

New Ross Laboratory Mill

A new, high-speed, three-roller mill for laboratory or pilot scale use was announced last month by Charles Ross & Son Co., 148-156 Classen Ave., Brooklyn 5, N. Y. The unit is said to be an exact replica of the larger Ross roller mills.

Designated #52LC, the new mill can be converted to either fixed center or floating center roll operation. It features a one-piece cast frame to eliminate deflection of rolls, helical cut gears and oversized roller bearings. Apron and end plates are said to be easily removable for cleaning.

Where BULK is important—SHEA SODIUM PHOSPHATES have the answer



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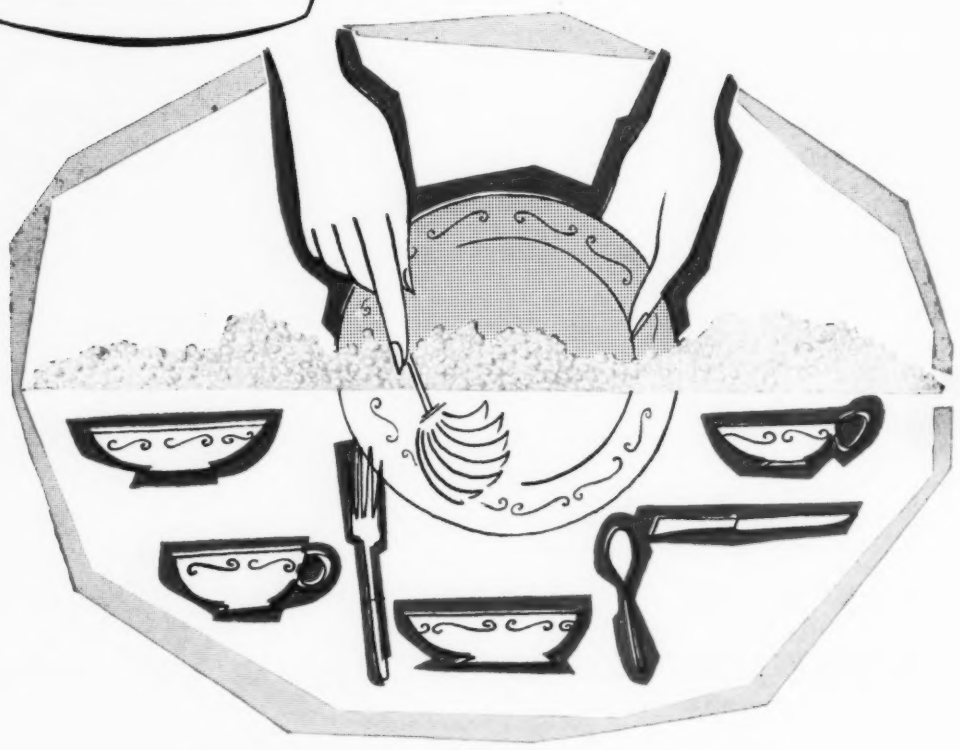

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Empilan LP 2 is a new and economic additive for liquid detergents with particular affinities for the popular anionic types. Its presence synergistically boosts detergency and increases fat emulsifying power, thus permitting the formulation of highly concentrated detergent products. The imparting of a pleasant 'soft' feeling to anionic liquid detergent, and a gearing of foaming power to cleaning power, are among other desirable features of this new addition to the comprehensive range of chemicals by Marchon.

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SOAP PLANT *Observer*

By John W. McCutcheon

THE recent purchase of Clorox Chemical Co. by Procter & Gamble Co. focuses attention on the actual and potential importance of bleaches in the detergent industry. Soapers have always been actively interested in bleaching agents. Long before the advent of optical bleaches and synthetic detergents many experiments were made aiming at the incorporation of sodium hypochlorite and sodium perborate into soap. Although it seems foolish to us now, one company is known to have attempted to chlorinate soap powder by passing chlorine through it.

Soap based perborate powders have enjoyed great and sustained popularity in European countries for many years. However, these products never became popular in America, because our custom calls for lower wash temperatures which result in poor decomposition of such compounds and consequently in poor bleaching effect.

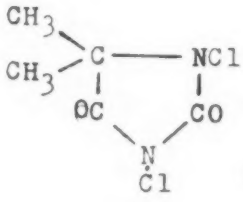
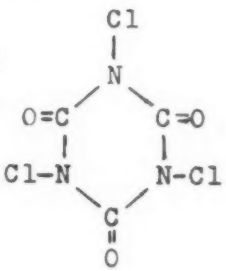
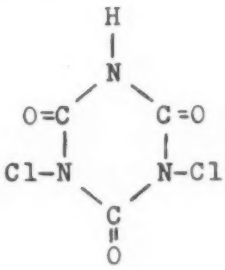
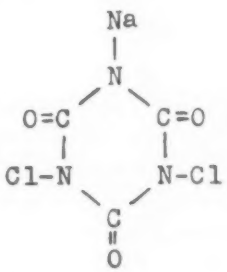
European plants, where perborates are freely compounded with soaps and synthetics, have evolved a special processing technique to deal with the peculiar problems presented by the per compounds. High temperatures used in spray drying generally result in perborate decomposition and consequent significant loss of bleaching agent. As a result European practice is to spray dry the partially built detergent first and then to add about 10 per cent sodium perborate in a subsequent blending operation.

In the United States bleaching techniques have followed different lines. Optical bleaches or whitening agents are now used almost universally in both soaps and detergent beads. Bleaching agents are sold separately in box or bottle. This development places control in the hands of the expert, namely the housewife.

The modern homemaker has become a collector of household chemical specialties, anyway. The writer recently visited newly weds in the process of straightening up the apartment into which they had just moved. Row upon row of cleaning agents were lined up in the apartment. There was one for the floors, one for the ceilings, one for the walls, one for the dishes, and one for the sink!

Packaged or dry bleach became a commercially feasible item with the advent of such organic derivatives as substituted hydantoin and chlorocyanuric acid. These

Commercially Available Dry Bleaches

Formula	1,3-dichloro 5,5-dimethylhydantoin	Trichloro cyanuric acid	Dichloro cyanuric acid	Sodium dichloro cyanurate
				
Trade names and manufacturers	Halane by Wyandotte	ACL-85 by Monsanto CDB-85 by Westvaco	ACL-70 by Monsanto CDB-70 by Westvaco	CDB-60 by Westvaco
Form	White powder	Cryst. powder	Cryst. powder	Cryst. powder
Solubility H_2O,g/100g of solution	0.21* @ 25°C	1.2 @ 26.8°C	2.6 @ 26.8°C	24.8 @ 26.8°C
Benzene	9.2* @ 25°C	3.6 @ 25°C	0.28 @ 25°C	.....

* Per 100 gram of solvent.

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Cleanliness that clings *with* G-11®

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G-11 is one of the most *effective* ways to protect your people against skin infection—the cause of much costly absenteeism—while helping to prevent contamination of the materials they handle!

Whether your responsibility is a factory, hospital, food plant, school, restaurant or commercial building, you can give your personnel cleanliness that clings and intensify your attack on skin bacteria with products containing *G-11.*

Hexachlorophene soaps and detergents are non-irritating to the skin and can be used in all types of soap dispensers without fear of corrosion. Ask your supplier for full information.

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fairly stable products decompose with water to yield a hypochlorous acid solution. Wyandotte Chemicals Corp. was the first in this market with "Halane", its registered trade name for 1,3-dichloro-5,5-dimethylhydantoin. Monsanto and Westvaco have entered the field with cyanuric acid derivatives and American Cyanamid Co. is ready to supply the starting material, cyanuric acid, if and when it is needed.

Present production of all products of this type probably exceeds 4,000 tons a year, including the output of Monsanto's new 1,500 ton a year plant which went on stream Oct. 1. Westvaco's production unit, due to start next year, will boost this total by another 3,000 tons.

Some confusion exists in the trade as to whether hydrantoin or chlorocyanuric acid is the better product. This uncertainty probably stems from their properties, which vary under different conditions. Three types of chlorocyanuric acid are available: trichloro-, dichloro-, and the sodium salt of the dichloro derivative. Water solubility of these compounds increases in the order given and exceeds that of hydantoin. However, water solubility is not necessarily a controlling factor in the use characteristics of the material. The trichloro- derivative, for example, decomposes and releases its chlorine best at low pH values, corresponding to low solubility.

The trichloro- compound contains a higher percentage of available chlorine but is less stable than the dichloro- derivative. The latter may be made into a slurry and spray dried without appreciable loss by decomposition.

Comparing the economics of the two types of bleaching compounds, one finds that the hydantoin derivative (available chlorine content 66 per cent) is priced at about 40 cents a pound. The cyanuric acid derivatives, priced at 65 to 75 cents a pound, have an available chlorine content ranging from 60 to 85 per cent.

Commercial laundries and household dry bleaches are the two chief markets at the moment. A fierce battle between the two types of powder bleaches undoubtedly will develop should there be a large buying shift from liquids to powders by the housewife.

Special precautions must be observed in the formulation of dry bleaches because these materials are organic and decomposed by water: builders must be anhydrous; detergents should be used in small amounts and confined to the anionic stable sodium dodecylbenzene sulfonate or sodium alcohol sulfate; carbonates, amines and ammonium salts are to be avoided; packages must be moisture resistant.

* * *

PLANS for a compounding plant designed to manufacture industrial cleaners have been outlined in the September and October issues. To supplement the few specimen formulae given on those occasions we present below some basic formulations for alkaline cleaners:

Dairy Pipe Line Cleaner

	per cent
Sodium tripolyphosphate, anhydrous	15
Trisodium phosphate, anhydrous	3
Metasilicate, anhydrous	5
Soda ash	55
Sodium bicarbonate	12
Quaternary ammonium germicide, such as "Hyamine"*	10
	100

*Rohm & Haas Co., Philadelphia

Dishwashing Compound (Industrial)

	per cent
Soda ash	40
Trisodium phosphate, crystal	10
Sodium tripolyphosphate	4
Sodium metasilicate, crystal	45
Wetting agent, such as "Nekal BX"**, etc.	1
	100

**General Aniline & Film Corp., New York

Steam Cleaner

	per cent
Sodium hydroxide	25
Sodium metasilicate, anhydrous	32
Soda ash	30
Tetra sodium pyrophosphate, anhydrous	10
Sodium dodecylbenzene sulfonate, 40 per cent active	3
	100

Powdered Bleach (Industrial)

	per cent
Organic chloro compound such as "Halane"***, "CDB-70"†, etc.	12
Dodecylbenzene sulfonate, 40 per cent active anhydrous	2
Disodium phosphate, anhydrous	5
Monosodium phosphate, anhydrous	50
Sodium sulphate, anhydrous	31
	100

***Wyandotte Chemicals Corp., Wyandotte, Mich.
† Westvaco Mineral Products Division, New York

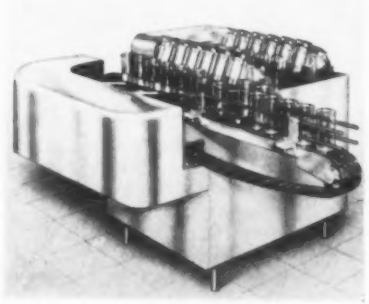
Glass Cleaner—Powder

	per cent
Nonionic detergent, such as "Triton X-101"*****	3
Sodium tripolyphosphate	25
Trisodium phosphate	12
Sodium sulphate	60
	100

****Rohm & Haas Co.

New Filler Cleaner

A new cleaning unit that is said to remove glass chips, dust and dirt from containers by turning them over 180 degrees and cleaning by air blast, has been developed by Filler Machine Co., 10 Penn Ave., Rockledge, Philadelphia. Called "Roll-Over," the new unit can clean from 40 up to 200 containers per minute and is available with two, four, six, eight or ten lines. It may be obtained separately for incorporating into existing filling machines or it can be included with a fully automatic Filler Machine Co. filling line.



AS A SPACE SPRAY . . .

Du Pont Methoxychlor

(90% TECHNICAL METHOXYCHLOR OIL CONCENTRATE)

gives knockdown in addition to kill!

Compare!

PEET GRADY TEST DATA—SPACE SPRAYS

	%Flies on Floor 2 min.	4 min.	6 min.	8 min.	10 min.	% Dead 24 hrs.
OTI	79	94	97	97	96	21
1.00% methoxychlor	16	71	95	97	99	85

71% KD in just 4 minutes proves methoxychlor is much more than a lethal agent alone. Du Pont methoxychlor is one of the least expensive insecticides you can use in many effective combinations. Contact the district office nearest you.

DU PONT
REG. U. S. PAT. OFF.

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Atlanta 8, Georgia . . . . . 739 West Peachtree Street
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Cleveland 14, Ohio . . . . . 1321 National City Bank Bldg.
Wynnewood (Philadelphia), Pa. . . . . 308 E. Lancaster Avenue
Houston 25, Texas . . . . . 1100 East Holcombe Blvd.

News...

PEOPLE • PRODUCTS • PLANTS

Simoniz Advances Cluck

* * *

FTC Hits Clorox Sale

* * *

New P&G Directors

* * *

White Bon Ami V.P.

Newly elected president of Purex Corp., South Gate, Calif., Alan C. Stoneman, was formerly executive vice-president. In his new post he succeeds Adrien C. Pelletier, who becomes board chairman. Full details on page 169.

New service for Organic Chemical users

For the specialized service required by consumers of organic chemicals, call Olin Mathieson. The Organic Chemicals Division now makes available a team of experts, ready to give you the technical assistance needed in the handling and use of this special group of chemicals.

Production is at Olin Mathieson's modern hydrocarbon plant in Brandenburg, Kentucky; local stock points are located in key industrial areas. For data sheets and shipping information, write today.

Ethylene Oxide · Ethylene Glycol · Diethylene Glycol
Triethylene Glycol · Polyethylene Glycols (Poly-G's)
Glycol Ether Solvents (Poly-Solv's) · Ethanolamines
Surfactants (Poly-Tergents) · Ethylene Dichloride
Dichloroethylether.

Poly-G®, Poly-Solv® and Poly-Tergent are trademarks

5514

MATHIESON ORGANIC CHEMICALS DIVISION

OLIN MATHIESON CHEMICAL CORPORATION
ONE PARK AVENUE, NEW YORK 16, NEW YORK

News

White to Bon Ami

J. Kenneth White has joined Bon Ami Co., New York, as a vice-president, it was announced recently. He will be in charge of all advertising, marketing and sales activities for the entire "Bon Ami" product line. Mr. White formerly was a vice-president of Lennen & Newell, Inc., New York advertising agency, where he was account supervisor on Lehn & Fink products, and assistant account supervisor on the Colgate-Palmolive account.

J. Kenneth White

★

Frank Neri Dies

Frank Neri, who retired two years ago as vice-president and general sales manager of Wilbert Products Co., New York, died Oct. 3 in his home in the Bronx, N. Y. He was 58 years old.

He is survived by his widow, Emilia; a daughter, Mrs. Emilia Castricone, and a sister, Mrs. Antoinette Angelini.

★

Acquires S.O.S. Co.

General Foods Corp., White Plains, N. Y., last month announced that it has arranged to acquire S.O.S. Co., Chicago, by Dec. 31. Purchase price was not disclosed.

S.O.S. manufactures soap-impregnated scouring pads and woven plastic dishwashing aids. It has a wholly-owned Canadian subsidiary, Tuffy & Co., Ltd., with headquarters in Toronto.

George W. Brooks, S.O.S. vice-president and general manager, will continue to manage the firm, which will be operated as a division of General Foods Corp.

★

William F. Plowfield Dies

William F. Plowfield, 66, manufacturer's agent in the sanitary chemicals and maintenance fields, died Oct. 1 in Philadelphia, after a short illness.

Prior to his most recent position, Mr. Plowfield headed his own chemical company. He also had served as director of specialty sales for West Chemical Products, Inc., Long Island City, N. Y., and as director of industrial sales for R. M. Hollingshead Corp., Camden, N. J.

He is survived by his widow, Kathryn and a brother, Harvey Plowfield.

★

Chemway Votes Stock Rise

Stockholders of Chemway Corp., Mountain View, N. J., last month at a special meeting voted to increase the authorized stock to 10,000,000 from 2,000,000 shares. According to Charles T. Silloway, president, the company has no immediate plans for issuance of additional stock.

Joseph L. Stevens

Lever Advances Ritzmann

Otto A. Ritzmann, Jr., has been named product manager for "Breeze," "Silver Dust," and "Surf" detergents, it was announced last month by Lever Brothers Co., New York. Formerly central regional sales manager, Mr. Ritzmann will be succeeded in that post by Joseph L. Stevens, who previously was concerned with merchandising planning for Lever's bar soaps and packaged detergents.

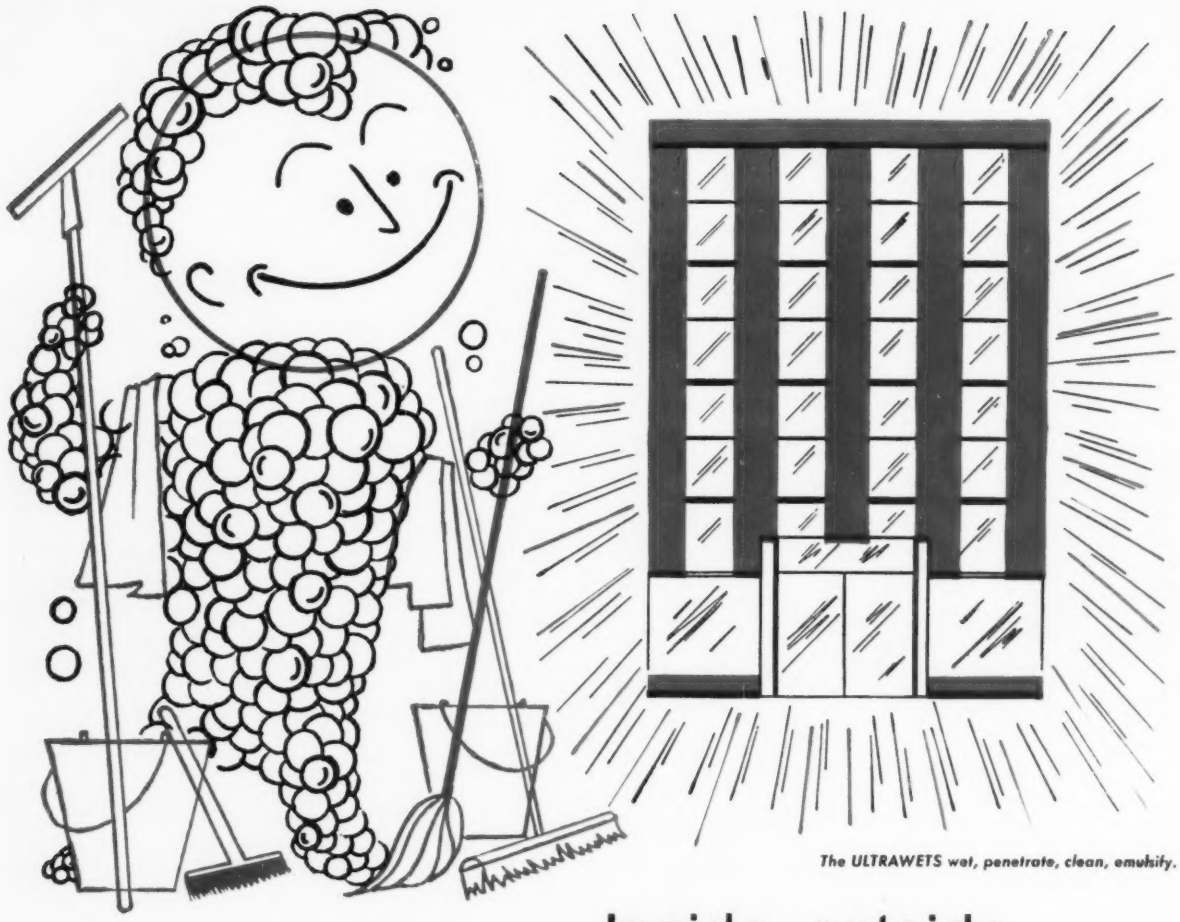
Otto A. Ritzmann

Mr. Ritzmann, who joined the company's sales force in 1939, had been central regional sales manager since 1953. With Lever since 1935, Mr. Stevens has served in numerous supervisory sales positions, including that of national field sales manager. In his new capacity, he will direct sales of Lever's packaged and bar soaps and detergents in the Pittsburgh, Cleveland, Syracuse and Detroit sales districts.

★

Gump Joins Mich. Chemical

J. R. Gump has joined Michigan Chemical Corp., St. Louis, Mich., as group leader in charge of inorganic research. Formerly senior research chemist with Heavy Minerals Co., Chattanooga, Tenn., Dr. Gump will supervise research of inorganic chemicals manufactured by the company.



The ULTRAWETS wet, penetrate, clean, emulsify.

Inside, outside, all around the building... here's the handyman to know

It's like having extra help on the cleaning force when you put Atlantic ULTRAWETS to work on factory and institutional clean-up jobs.

ULTRAWET 60L is a superior liquid alkyl aryl sulfonate that works well in hot or cold water, hard or soft water. It increases the efficiency of floor scrubbing, heavy-duty liquids and hard surface cleaners as well as liquid sanitizers... emulsifies grease, speeds soil removal, keeps solids in uniform suspension and leaves no soap scum.

Leading compounders find that ULTRAWET 60L provides uniform high quality and flexibility in the formulation of all-purpose liquid cleaners. In scrub soap formulations it allows the use of a higher phosphate content with resulting clear solutions. Furthermore, it provides excellent controlled pH of alkalinity.

The ULTRAWET product advantages add up to sales advantages for you. Atlantic ULTRAWETS are available in flake, bead and liquid form. For even greater economy, deliveries can be made in bulk shipments.

For more information on our cost-cutting ULTRAWETS, write, call or wire The Atlantic Refining Company at the nearest office listed.

ATLANTIC
PETROLEUM
CHEMICALS

Philadelphia, Providence, Charlotte, Chicago

In Canada: Naugatuck Chemicals Division of Dominion Rubber Company, Ltd.

In Europe: Atlantic Chemicals SAB, Antwerp, Belgium

In South America: Atlantic Refining Company of Brazil, Rio de Janeiro

F.T.C. Hits P&G, Clorox Merger

THE Federal Trade Commission has filed a complaint against Procter & Gamble Co., Cincinnati, charging the soap firm with violation of the anti-merger law in its recent acquisition of Clorox Chemical Co., Oakland, Calif.

The FTC complaint said that Procter & Gamble's purchase of Clorox, which it described as the nation's largest seller of liquid household bleach, "may substantially lessen competition or tend to create a monopoly." It gave P&G 30 days in which to answer the complaint, and said that a hearing would be held Dec. 16 in Cincinnati.

The complaint also stated that Procter & Gamble bought Clorox on or after Aug. 1, paying more than $30,000,000 although the FTC said Clorox's assets were valued at about $15,000,000. The difference was for the "Clorox" trade name and goodwill, the FTC alleged.

According to the FTC, Clorox last year sold about 48 per cent of all household liquid bleaches in the United States and about three times as much as its nearest competitor. Approximately 40 producers accounted for the remainder of the market with one getting 16 per cent and no other single producer more than five per cent. In addition, the FTC said that Clorox's share of the market was constantly increasing while its competitors' share was constantly decreasing.

Other household liquid bleach producers, the FTC charged, may not be able to compete in the market because of P&G's "market position, financial and economic strength, advertising ability and experience, and merchandising ability and experience."

Procter & Gamble, the complaint concluded, now has a full line of cleaning and laundry products which competitive makers of household liquid bleach do not have. This, the FTC said, gives it an advantage in obtaining "critically short and valuable shelf space in grocery stores."

Howard J. Morgens, president of Procter & Gamble, said in reply to the FTC charges:

"The staff of the Federal Trade Commission has filed a proceeding against Procter & Gamble attacking the recent acquisition of Clorox Chemical Co., manufacturer of liquid bleach. Although the commission staff has known the full facts at least since mid-May, it brings this proceeding two months after the completion of the acquisition on Aug. 1.

"In the complaint there is no charge against either company of present monopoly or restriction of competition.

"The basic grounds for the complaint is that Procter & Gamble advertises widely, is successful, and has gained broad acceptance for its products among housewives and other consumers. The inference that the staff of the FTC has drawn is that this case of competence, which is basic to success of American business, large and small, may possibly result in some future violation of the law.

"We cannot conceive that the Federal Trade Commission, operating in its judicial capacity, can possibly hold that there is any basis for this proceeding."

★

Denies FTC Charges

Helene Curtis Industries, Inc., Chicago, has denied Federal Trade Commission charges that its television advertising falsely represents that "Enden" shampoo will cure dandruff problems by declaring that this product will stop these problems, as claimed in the company's advertising. In addition to its denial Helene Curtis also moved that the FTC complaint be dismissed.

The company specifically denied that its advertising "when interpreted as a whole" implies that "Enden" will cure dandruff. The entire advertisement, the firm said, "is reasonably understood to mean that the use of 'Enden' will stop unsightly flakes and itching and will inhibit the growth of bacteria commonly found where dandruff problems exist."

★

"Silver Dust" Promotion

Lever Brothers Co., New York, recently announced a consumer promotion campaign, tied in with the approaching holiday season, on behalf of its "Silver Dust" blue detergent. The promotion, which began last month, features an offer of 12 asorted Christmas cards, valued at $1.20, or 12 all-occasion cards. Consumers receive the set by mailing in the box tops of four regular or two giant or one king-size "Silver Dust" blue carton.

The greeting card promotion is in addition to the permanent in-pack Cannon face cloth, kitchen and both towel premiums regularly offered by "Silver Dust." Special advertising support will be carried in some 300 newspapers and a heavy spot radio campaign is being employed in October and November. A wide variety of dealer promotion aids also being offered.

★

CIBS Christmas Party

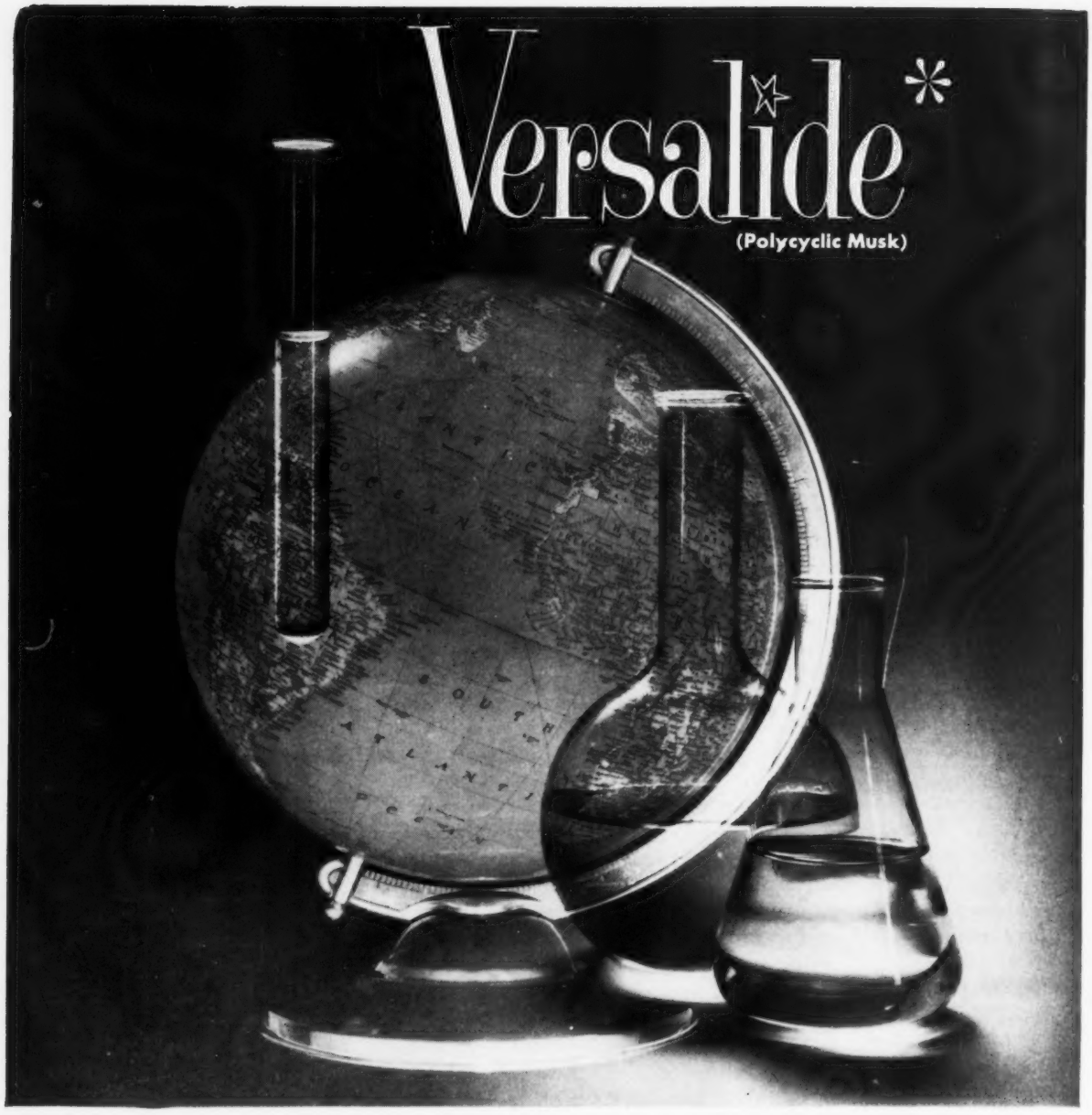
The Cosmetic Industries Buyers & Suppliers Association will hold its annual Christmas Party at the Waldorf-Astoria Hotel, New York, Nov. 30, it was announced recently by Jack Palmer, Peerless Tube Co., Bloomfield, N. J., program chairman.

Cocktails will be served in the Sert Room at 6:30 p.m. and dinner will be at 8:00 p.m. in the Starlight Roof. Tickets are $35.00 per couple and may be purchased from Mr. Palmer.

★

Kolker Names Hackett

John Hackett has been appointed assistant sales manager of Kolker Chemical Corp., Newark, N. J., it was announced recently. Mr. Hackett formerly was north New Jersey sales representative for Monsanto Chemical Co., St. Louis.



an international success!

Within a year of its introduction, *Versalide*, Givaudan's outstanding new polycyclic musk, has met with international acceptance! Perfumers throughout the world of fragrance have recognized in its versatility and unique combination of advantages a whole new field of opportunity for creative perfumery.

Versalide lends to a perfume all the enhancement, sweetness, strength, fixation and blending properties expected only from the macrocyclic musks, and yet at a fraction of their cost.

A pure chemical body, not a mixture, *Versalide* is economical—stable to light, heat, air, alkali; and does not discolor soap. And its versatility is practically unlimited!

We will gladly send you a sample and more detailed information.

* Reg. U.S. Pat. Off.

GIVAUDAN

GIVAUDAN-DELAWANNA, INC.
330 West 42nd Street, New York 36, N. Y.

Simoniz Appoints Two

Donald E. Cluck has been named general sales manager and Paul J. Greenfield marketing manager of Simoniz Co., Chicago, it was announced recently by Robert C. Shropshire, executive vice-president in charge of marketing. Mr. Cluck will be in charge of all the sales activities of the company, while Mr. Greenfield will supervise product managers and advertising.

Donald E. Cluck

Paul J. Greenfield

Mr. Cluck has been associated with the sales department of Simoniz for 11 years. Prior to his recent promotion, he had served as a division and regional manager in Cleveland and New York.

With the company for three years, serving in a product management capacity, Mr. Greenfield previously was associated with McKesson & Robbins, Inc., in charge of Newark, N. J. operations.

Shulton Names O'Brien

William O'Brien has been named manager of the fine chemicals department of Shulton, Inc., Clifton, N. J., it was announced recently by George L. Schultz, president. Mr. O'Brien also serves as vice-president of finance. In his new post, he succeeds Richard Brainard who will assume responsibility for the company's real estate and business acquisition program. Mr. O'Brien joined Shulton in 1953 as assistant controller. He became controller and assistant treasurer in 1954 and was elected a vice-president in May of this year.

William O'Brien

H. A. Colgate Dies

Henry Auchincloss Colgate, 67, a director of Colgate-Palmolive Co., New York, died Oct. 16 at Harkness Pavilion, Columbia-Presbyterian Medical Center, after a short illness.

A native of Llewellyn Park, Orange, N. J., Mr. Colgate was the son of Richard Morse Colgate. He attended the Hill School, Pottstown, Pa. and Yale College.

He began his business career in 1920 when he joined the Colgate Co. in the manufacturing department. Subsequently he was transferred to the sales department and was elected secretary of the firm in 1919. He was named a vice-president in 1924 and four years later was elected a director. In the following years he served in executive capacities with many other firms, mostly in the financial field. At the time of his death, Mr. Colgate was a partner in Wood, Struthers & Co., New York investment house.

He is survived by two sons, Richard M. Colgate of West Orange, a product manager with Colgate-Palmolive, and Stirling A. Colgate of Livermore, Calif.; and two daughters, Mrs. Richard C. Sutton of Honolulu and Mrs. Lee Colgate Zollinger of Berkeley, Calif.

★

New Carbide Sales Office

Union Carbide Chemicals Co., New York, has moved its New Orleans district sales office to new quarters at 1833 Conti St., New Orleans 19. The new telephone number is AMherst 5301.

★

Pennsalt Names Scott

Appointment of Francis Leslie Scott as project leader in the technical division of Pennsalt Chemicals Corp., Philadelphia, was announced recently by George McCoy, manager of research and development. Dr. Scott will do research in organic nitrogen chemistry.

★

New Sonneborn Line

A new line of petroleum sulfonates was introduced last month by L. Sonneborn Sons, Inc., New York. Tradenamed "Duonates," the new products are designed for use in the manufacture of insecticides, cutting oils and rust preventives.

★

Feldman Gains New Title

Edwin B. Feldman, vice-president of production of Puritan Chemical Co., Atlanta, Ga., manufacturers of industrial detergents and sanitary chemicals has been registered with the Georgia Department of State as a professional engineer. He is the first engineer in the maintenance and sanitary chemicals field to qualify for such registration. Feldman has been with Puritan since 1948.

Idea stimulator for product improvement and development

PROPERTIES • SPECIFICATIONS • EFFECTS • TOXICOLOGICAL DATA • USES

THE DOW CHEMICAL COMPANY, Dept. GD 827A-1
Midland, Mich.

☐ Please send booklet, "Dow Polyethylene Glycols".
☐ Please have representative call to discuss these products.

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Ideas come, of course, when they're good and ready and often they show up at odd times and places. Most research men find, however, that a little stimulation helps, and the best stimulator is a mental file of facts and information.

This technical booklet provides such facts in readily digestible form. It also acts as a ready reference on polyethylene glycols, products uniquely adaptable to hundreds of uses, both as intermediates and as compounds in their own right.

Incidentally, whether or not you use polyethylene glycols at present, order a copy today for your personal file.

YOU CAN DEPEND ON DOW

P&G Elects Four New Directors; Chase Also Named Soap Division V.P.

W. R. Chase

R. B. Robertson, Jr.

THE election of W. Rowell Chase as vice-president of the soap products division and a director of Procter & Gamble Co., Cincinnati, was announced at the firm's annual meeting of board of directors and shareholders, held last month in Cincinnati. In his new post, Mr. Chase will direct the company's soap and synthetic detergent operations in the United States.

Formerly head of P&G's advertising department, Mr. Chase is one of four newly-elected directors. The others include Robert S. Oelman, president and director, National Cash Register Co., Dayton, O.; Reuben B. Robertson, Jr., president, Champion Paper and Fibre Co., Hamilton, O.; and Edgar Gordon Burton, president and chairman of Simpsons, Ltd. and Simpsons-Sears, Ltd., a leading department store and mail order firm of Canada. Mr. Burton is the first P&G director chosen from outside the United States. Mr. Robertson had served on the P&G board from 1948 to 1955. He returns after serving two years as Deputy Secretary of Defense.

Mr. Chase will be succeeded as head of the advertising department by E. A. Snow, who formerly was in charge of all brand promotion activities for soap products. With the company since 1931, Mr. Chase has served as vice-president of advertising since 1955. He became manager of a brand promotion division in 1936 and was named advertising manager in 1951. In 1954 he became a member of the company's administrative committee.

E. G. Burton

Robert S. Oelman

The company also announced the retirement of four directors. They are Neil H. McElroy, president from 1948 to September 30th of this year and newly-appointed Secretary of Defense; R. K. Brodie, chairman of the board of the University of Cincinnati, who joined P&G in 1919 and was elected to the board in 1934; J. J. Rowe, a director since 1929; and Charles W. Dupuis, a director since 1926.

At the shareholders meeting, R. R. Deupree, P&G chairman, reported that business during the fiscal year of 1957 has been "good and steady" for which he credited P&G's expanding research program and its "policy of going to the consumer to find out what she wants." The year, he said, had produced a record volume in sales of soap, toilet goods, food and paper products for the 120-year-old company.

Mr. Deupree also declared that Procter & Gamble has remained alert to the "overnight" changes of the fast-moving world. To maintain the company's position, he said, calls for a trained, quick-acting organization with experienced management.

"We must know first of all what is going on; second, we must have the technical strength to perfect acceptable products; third, we must have the marketing knowledge and know-how in advertising and selling," he said. "And," he added, "I believe we have more than answered the demands made upon us in carrying out this program."

—★—

Lueders Honors Weber

Ferdinand Weber, vice-president and treasurer of George Lueders & Co., New York, was presented with a silver-banded walking cane in commemoration of his 63 years service with Lueders. Presentation was made last month at a company dinner attended by employees who

Recognition

The cosmetics chemist's thinking starts with the consumer. He knows that the important point about the point of sale is this — the shoppers' first introduction to your product is through sight and smell. And when they encounter a fragrance that they recognize as authentic — they're delighted, and they're *yours!*

So many leading cosmetics achieve this clean, fresh, floral brilliance with Verona products. Why not try some of the special Verona developers and extenders listed at the right — see for yourself how beautifully they bring out the latent qualities, hit and *hold* the piquant round notes you're striving for. We will gladly send samples on request.

A FEW VERONA SPECIALTIES

RESEDALIA, an acetal.
VERONOL, an aldehyde.
CYCLAMAL, cyclamen aldehyde.
ROSANOL, an acetal.
PHENYL ACET ALDEHYDE PHENYL GLYCOL ACETAL
TERTIARY BUTYL DI METHYL CUMARIN
ORYCLON
FLOWER OIL WHITE LILAC.

AROMATIC VERONA DIVISION

VERONA PRODUCTS BUILD SALES FOR *Your* PRODUCT

VERONA CHEMICAL COMPANY Plant and Main Office: 26 Verona Avenue, Newark, N. J. 1210 Rosedale Avenue, Chicago,

have been with the firm for 25 years or more.

★

Conoco Laboratory

Nuclear radiation will serve petrochemical research at the Ponca City, Okla., atomic radiation laboratory completed recently by Continental Oil Co., Houston, Tex. Work in the new laboratory includes both gamma radiation research and radio tracer studies. E. R. Baker, Conoco's manager of development and research, announced the opening of the new atomic radiation unit and described its research role and potentialities. "Radiotracing will open the door to countless new studies of the reactions of hydrogen and carbon, the principal elements in petroleum," according to Mr. Baker.

★

Shell Appoints O'Sullivan

C. J. O'Sullivan has been named technical sales representative in metropolitan New York and Long Island for Shell Chemical Corp., New York, it was announced recently by D. P. Jones, New York district sales manager. In his new position, Mr. O'Sullivan will primarily be concerned with sales of the firm's "Epon" resins. He formerly was assigned to Shell's technical service laboratory in Union, N. J.

Peck's Buys Ped-O-Flo

Peck's Products Co., St. Louis, last month announced the purchase of Ped-O-Flo Co., Waverly, Ia., manufacturers of "Ped-O-Flo" foot operated soap dispensers and "Anasep" liquid antiseptic hospital soap. Both products are marketed exclusively through jobbers. The purchase included the good will, trademarks, equipment and inventory of Ped-O-Flo. No plant or manufacturing facilities were involved. Terms of the transaction were not disclosed.

★

Klein Joins Phila. Quartz

Philadelphia Quartz Co., Philadelphia, has appointed Charles W. Klein to its sales staff, it was announced recently. His territory will include metropolitan New York and New England.

Part of the record turnout of over 125 persons who attended largest regional dinner meeting of the National Sanitary Supply Association at the Hotel Roosevelt, New York, Oct. 10. Seated at head table left to right and from bottom to top are: Samuel Newman, Creco Co., Long Island City, N. Y.; Martin J. Peters, Moore Brothers Co., New York; Burton L. Feinson, American Dispenser Co., New York; Harold Pond, Advance Floor Machine Co., Minneapolis, and national vice-president of NSSA; T. James Reider, George T. Johnson Co. Medford, Mass., NSAA president; Leo J. Kelly, executive vice-president, NSSA; Seymour Chase, Federal Fiber Co., Long Island City, N. Y., program chairman; Philip Janvey, I. Janvey & Sons, Hempstead, N. Y., regional vice-president; Lester Brown, I. Edward Brown Co., New York; and Jack Kahn, Windsor Wax Co., Hoboken, N. J., NSSA director, partially hidden.

Colgate Earnings Higher

Net income of the Colgate-Palmolive Co., New York, in the first nine months of 1957 rose to $9,795,114, equal to share earnings of $3.79, from $6,781,367 and $2.59, in the similar period of the previous year. Domestic net sales declined to $210,502,941 from $222,965,145. However, world wide sales increased to $388,223,000 from $382,927,000, in the first nine months of 1956.

In the third quarter of 1956, Colgate reported that net income totaled $4,353,227, equal to share earnings of $1.70, compared with $2,375,850 and 91 cents in the corresponding period last year. Domestic sales in the quarter ended Sept. 30 rose to $73,492,120 from $70,802,799 in the preceding year.

★

New Hollingshead Rep.

Appointment of Lynn Peavey Co., Kansas City, Mo., as its midwestern sales representative was announced recently by the maintenance chemical division of R. M. Hollingshead Corp., Camden, N. J.

Mr. Peavey will represent Hollingshead's complete line of floor finishes, sealers and related maintenance chemicals in Kansas, Nebraska, Iowa and the western half of Missouri.

PILOT HD-90

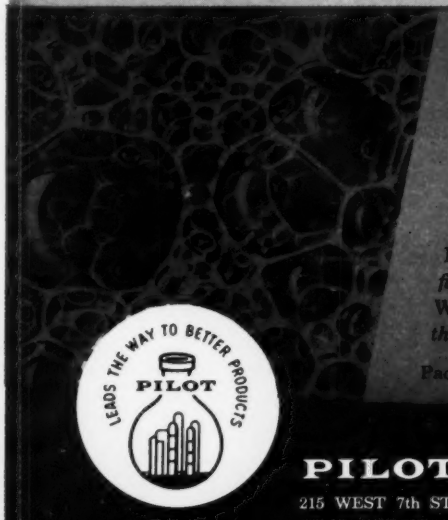
CONCENTRATED QUALITY CUTS COSTS

QUICKER AND BETTER TO PRODUCE LIQUID DETERGENTS FROM PILOT HD-90 FLAKE

MAKES LIQUID DETERGENTS EASILY

because Pilot HD-90
REQUIRES NO STORAGE TANKS
IS READILY SOLUBLE
MAKES CLEAR SOLUTIONS
HAS HIGH SUDSING AND EMULSIFYING
HAS EXCELLENT PERFUMABILITY—ODORLESS BASE
REQUIRES LESS LABOR AND INVESTMENT
IS AVAILABLE IN ANY QUANTITY

because it's **COLD PROCESSED**
HIGH ACTIVE ALKYL ARYL SULFONATE
90.0% minimum active drum dried flake



Only cold processing at temperatures below freezing can produce *concentrated uniform* sulfonation! Every micelle produced in solution from Pilot HD-90 is homogeneously effective for such use as household sudsers, industrial detergents and scouring powders. Cold processing eliminates undesirable side reactions, hydrocarbon odors, and any rearrangement of the molecular structure. Pilot HD-90's high quality in the making and mixing of dry products is equally applicable to the manufacture of liquid detergents. Pilot HD-90's concentrated and sulfate-free properties *eliminate filtering;* give liquids the highest sudsing and cleaning powers obtainable. Write for formulas and samples. *Only Pilot HD-90 Detergent features this premium quality at competitive prices!*

Packed in polyethylene lined fibre drums and in 5-ply paper bags.

LEADS THE WAY TO BETTER PRODUCTS
PILOT

PILOT *California Co.* *Manufacturers of*
215 WEST 7th STREET • LOS ANGELES 14, CALIFORNIA

Sulfonic Acids
Dodecyl Benzene Sulfonates
Sodium Toluene Sulfonate

New CSMA Aerosol Group

The aerosol division of the Chemical Specialties Manufacturers Association has organized a special committee to work with colleges and universities desiring information and assistance in the teaching of aerosol manufacture and distribution. Dr. Francis A. Mina, Lodes Aerosol Consultants, Inc., New York, has been named chairman of the new committee.

Present plans call for distribution of a "kit" containing brochures and leaflets on aerosols, prepared by firms in the aerosol field, to any institution desiring assistance. The CSMA has requested that member companies submit any printed matter it may have on the subject for inclusion in the folder. The committee would be the final judge as to what material would be presented in the "kit."

Material should be sent to the Aerosol-University Liaison Committee, 50 East 41st Street, New York 17.

—★—

Stoneman New Purex Head

Alan C. Stoneman was elected president of Purex Corp., Ltd., South Gate, Calif., at the company's annual meeting held late last month in Pasedena. He succeeds Adrien C. Pelletier, who was re-elected chairman of the board. Formerly executive vice-president, Mr. Stoneman has been a member of the executive organization since 1952. He had served in his most recent post since 1946. Prior to that he was production manager.

The board also announced that George A. Evans, secretary-treasurer, will in addition assume the post of vice-president of finance, and James A. Barnett, vice-president of Rexall Drug Co., has been elected a director. Mr. Barnett formerly was associated with Lever Brothers Co., New York.

Other Purex appointments include John B. McLaughlin as vice-president of sales and Frank P. Denney as vice-president of the firm's newly-formed international and industrial division. R. F. Sharp was elected vice-president of special plans and projects.

Mr. McLaughlin, previously associated with Kraft Foods Co., will have charge of the Purex sales organization in the United States and Canada. Mr. Denney formerly was associated with Safeway Stores.

A. C. Pelletier

George A. Evans

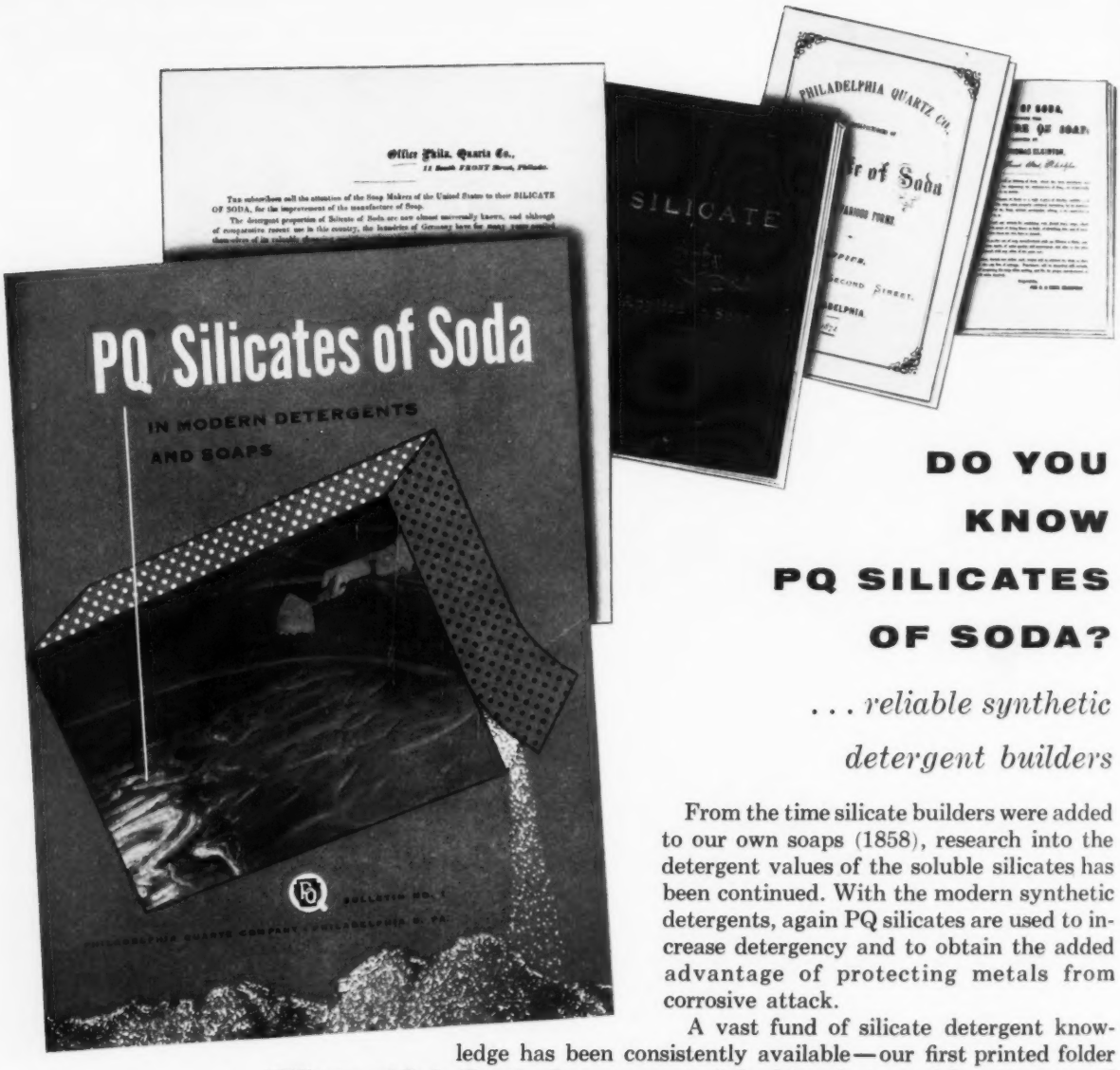
S. C. Barry, left, director of production service, Canada Department of Agriculture, presents scroll to Percy Misener Overholt, associate chief of pesticides inspection services of CDA, who retired last month. Also shown are Mrs. Overholt and J. W. Mackay, chief of CDA's plant production division. Mr. Overholt joined the department in 1925 in its seeds branch. He became assistant seed commissioner in 1930, administrative officer in 1949, and shortly thereafter was named to his most recent post.

—★—

Receives AICE Award

The sixth annual professional achievement award of the Western New Work Section of the American Institute of Chemical Engineers, was presented last month to R. Lindley Murray, president and board chairman of Hooker Electrochemical Co., Niagara Falls, N. Y., at a banquet at the Sheraton-Brock Hotel, Niagara Falls, Ont.

The award was made to Mr. Murray for his service to the AICE and in recognition of his outstanding engineering and executive ability. Mr. Murray is also president and director of both Hooker Chemicals, Ltd., North Vancouver, B. C., and Marble Nye Co., Worcester, Mass. In addition, he has authored numerous papers dealing with the chlorine and alkali industries.



DO YOU KNOW PQ SILICATES OF SODA?

. . . reliable synthetic detergent builders

From the time silicate builders were added to our own soaps (1858), research into the detergent values of the soluble silicates has been continued. With the modern synthetic detergents, again PQ silicates are used to increase detergency and to obtain the added advantage of protecting metals from corrosive attack.

A vast fund of silicate detergent knowledge has been consistently available—our first printed folder "Silicates of Soda For the Improvement of the Manufacture of Soap" appeared in 1864. Do you have copies of current PQ publications on soluble silicates in soap and modern detergents? Check any of the following which is of interest to you.

The Value of Silicate of Soda as a Detergent
Phase Study of Commercial Soap-Alkaline Electrolyte-Water Systems
A Phase Study of Sodium Palmitate-Alkaline Electrolyte Water Systems
Silicates in Soaps
Solubility Study of an Aqueous Potassium Laurate-Potassium Silicate System
Potassium Silicates in Soaps
Silicate of Soda as a Detergent
PQ Silicates of Soda in Soaps and Modern Detergents
Suspending Action of Alkaline Electrolytes on Ilmenite Black
Solubilization and Cosolvent Effect with Sodium Stearate
Alkyl Aryl Sulfonate Builder Mixtures
Viscosity of Potassium Soap-Potassium Silicate Mixtures
Viscosities and Solubilities of Synthetic Detergent Mixtures Containing Soluble Silicates
Silicates as Corrosion Inhibitors in Synthetic Detergent Mixtures

PQ SOLUBLE SILICATES

PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Building, Philadelphia 6, Pa.

Associates: *Philadelphia Quartz Co. of Calif. Berkeley & Los Angeles, Calif., Tacoma, Wash.; National Silicates Limited, Toronto, Canada*
Distributors in over 65 cities

TRADEMARKS REG. U.S. PAT. OFF.

PQ WORKS: ANDERSON, IND., BALTIMORE, MD., BUFFALO, N. Y. CHESTER, PA., JEFFERSONVILLE, IND., KANSAS CITY, KANS., RAHWAY, N. J., ST. LOUIS, MO., UTICA, ILL.

Close to 200 years of service with one company is represented by this foursome from Lehn & Fink Products Corp., New York. They were gathered at a farewell luncheon Sept. 24, at Toots Shor's restaurant, New York, for one of their members, J. J. Reiner, second from left, who is retiring as purchasing agent, after having been with Lehn & Fink for 50 years. Others in the photo and their lengths of service are, left to right: Edward Plaut, president, 42 years; J. Gilbert, credit manager, 46 years; and W. Froehlich, manager of customer service department, 47 years.

Pennsalt Chemicals List

More than one hundred inorganic and organic chemicals are listed in a new catalog published last month by the industrial division of Pennsalt Chemicals Corp., 3 Penn Center, Philadelphia 2. The 16-page bulletin (S-124) gives properties and applications of the full line of "Sharples" brand synthetic organics, including nonionic surfactants, alcohols, amines, esters, etc. The inorganics section includes many of the usual volume materials, such as hydrogen peroxide, chlorine, caustic, and ammonia. A number of semicommercial and pilot plant materials are also included. The catalog is available.

★

Neubauer Named C-S Pres

Election of Joseph A. Neubauer as president of Columbia-Southern Chemical Corp., Pittsburgh, was announced last month. He succeeds Edwin T. Asplund, who has been elected chairman of both Columbia-Southern and its parent organization, Pittsburgh Plate Glass Co.

Joseph A. Neubauer

Mr. Neubauer joined Columbia at its Barberton, O., plant in 1932. He later served as manager of the company's Natrium, W. Va., chlorine plant and in 1946 was named technical advisor to the vice-president. Three years later he was named technical director. In 1955 he was appointed vice-president and a director.

Why People Buy

(*From Page* 141)

keting. Actually, the book's subtitle reads: "The Key to Motivation Research." This branch of research seeks to learn what motivates individuals in making choices. It employs techniques designed to reach the unconscious or subconscious mind because preference generally is determined by factors of which the individual is not conscious.

Product, package, promotion and price are the four major factors determining market success. A number of case histories are given where change in package, trademark or color brought marketing successes predicted by Color Research Institute on the basis of association and indirect preference tests. Changes in color, shape, and wrapper of "Lux" toilet soap and of "Dove" detergent bar, both by Lever Brothers Co., are among individual brand success stories told and analyzed in question and answer form.

The book outlines the role of psychological testing in determining the marketing effectiveness of packaging, advertising and other selling aids.

Flea Control

(*From Page* 145)

DDT dust or four per cent malathion dust.

Aerosols containing a high concentration of knockdown agents such as pyrethrins or contact sprays containing such materials have fast but short lived effects. Their use should be followed by vacuum cleaning to pick up the immobilized fleas before they recover. However, it is essential to deal with the fleas in the cleaner.

Fleas are most effectively controlled if treatment of the premises coincides with treatment of the pets serving as hosts. Dusts containing about one per cent rotenone are slow but effective if fresh and not exposed to sunlight. Pyrethrum dust containing about one per cent pyrethrins or about 0.2 pyrethrins and two per cent synergist are widely used. Rotenone and pyrethrum can be used on cats and dogs. Dusts containing two to five per cent chlordane, five per cent DDT or one per cent lindane may be applied to dogs, but not to pups or cats. Dust containing one to two per cent methoxychlor is permissible on puppies and cats. Malathion (four per cent dust) is the only organic phosphorous compound currently suggested for application to small animals.

Lawns can be treated with suspensions made from wettable powders containing 5 per cent DDT, one per cent lindane, two per cent chlordane, two per cent malathion, or 0.5 "Diazinon".

There's something different about

Dreyer

They call us old hands at this business. A good many years of "depending on Dreyer" have built our background of helping you.

We have never grown old, however. Here at Dreyer, we *think* young.

Today there's new drive at Dreyer. We are a vigorous, modern organization with young, look-forward ideas. Up-to-date thinking here . . . thinking ahead . . . is pulling double harness with experience. The team's working hard and well.

So depend on Dreyer more than ever.
We can help you and save you money.

ESSENTIAL OILS • AROMATIC CHEMICALS
PERFUME COMPOUNDS • FLAVORS

Get the essential quality you require from

Dreyer

P. R. Dreyer Inc.
Serving You Since 1920

601 West 26th Street, New York 1, N. Y.
520 N. Michigan Avenue, Chicago 11, Ill.
Complete stocks carried in Chicago

DREYER

Catalin

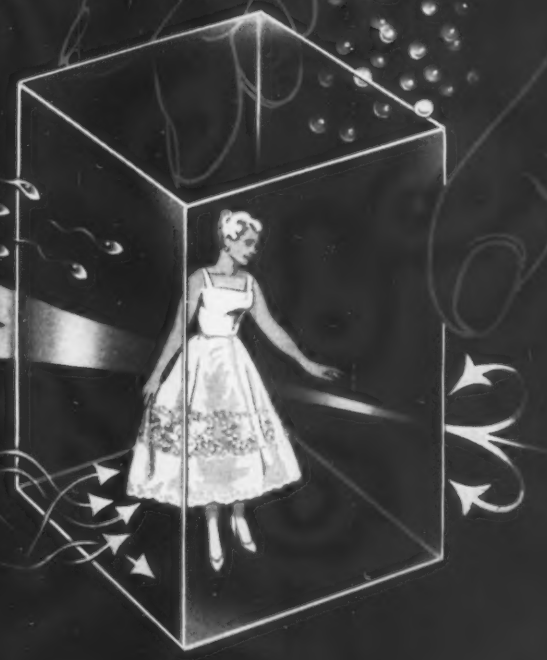
bacteriostat CS-1

FOR SOAPS, SHAVING CREAMS, SHAMPOOS, COSMETICS, PHARMACEUTICALS, ETC.

Catalin BACTERIOSTAT CS-1 . . . a safe, new, more effective, highly compatible inhibitor . . . is now available in production quantities.

Used in low concentrations, this comparatively low-cost skin bacteriostat achieves outstanding results in combating body odors and complexion defects caused by entrenched, rapidly multiplying microorganisms. It has amazing staying power . . . its degerming action persists long after its application.

If you are at present using a bacteriostat or contemplate its use in the near future, it will pay you to investigate the economic and antiseptic qualifications of Catalin BACTERIOSTAT CS-1. It has an extremely wide range of product applications and sales-stimulating potentials . . . Samples, literature and technical assistance wait upon your request. Inquiries invited.



CATALIN CORPORATION OF AMERICA
One Park Avenue, New York 16, N. Y.
Plants: Fords, N. J. • Calumet City, Illinois • Thomasville, N. C.

CATALIN chemical products include antioxidants, oil additives, bacteriostats, alkylation products and special chemicals.

CATALIN produces a wide range of urea, phenolic, cresylic, resorcinol and melamine resin formulations. Modifications of these are also available.

CATALIN plastics include polystyrene, polyethylene and nylon molding and extrusion compounds.

Prefer one gas station over any other?

IF YOU DO, that's a sign they treat you right. You like the quality of their products. And the service—simply wonderful! You know they'll take special care of you always.

You'll have confidence like that when you buy chlorine from Wyandotte.

Why? Because *our chlorine is sold with a guarantee of satisfaction.* We've coddled it every step of the way . . . from basic raw materials to the finished product we deliver to your plant. This rigid control assures its quality.

And behind Wyandotte chlorine stands the sincere, deep-rooted technical service that is an integral part of the Wyandotte way of doing business.

That's why you can be confident when you order Wyandotte chlorine. Why not write us today about *your* chlorine requirements. *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in principal cities.*

Wyandotte CHEMICALS
MICHIGAN ALKALI DIVISION

For guaranteed satisfaction, buy Wyandotte Chlorine

Emery Advances Eagleson

David R. Eagleson has been appointed assistant sales manager of the fatty acid department of

David R. Eagleson

Emery Industries, Inc., Cincinnati, it was announced recently by G. W. Boyd, sales manager. Mr. Eagleson formerly was sales manager of Emery's Chicago office. He will be succeeded in that post by Paul N. Leech.

With the company since 1945, Mr. Eagleson had been manager of the Chicago office since 1951. In his new position, he will assist in the direction of all phases of sales of Emery's complete line of fatty acids.

Mr. Leech previously served as Emery's representative in the middle-Atlantic states. In addition to Chicago, Mr. Leech's new territory includes northern Illinois, Wisconsin, Minnesota, northwestern Indiana and upper Michigan.

Paul N. Leech

P&S Celebration

Adolph Schwarz, managing director of Polak & Schwarz, Zaandham, Holland, last month was guest

Adolph Schwarz

of honor at a company party held in Amsterdam celebrating his 40th year with the perfuming firm. All employees of the company's Zaandham and Hilversum plants attended the affair.

Mr. Schwarz started with the company in 1917 and became deputy manager in 1921. He was named associate managing director in 1929 and shortly thereafter assumed his present position.

—★—

Nopco Appoints Christian

W. R. Christian has been named chief chemist of the industrial detergent laboratory of Nopco Chemical Co., Harrison, N. J., it was announced recently. In his new assignment, Dr. Christian will be

W. R. Christian

The man who dusted off a bottle

On our return call, the Purchasing Agent still hadn't heard from his chemist. "Let's get the story," he said—and we went down to the lab.

The "story" wasn't so good. The plant chemist was up to his neck in work and unopened samples. "We're just too busy," he groaned, "we'll get to sample evaluation when we can."

We spotted our ACINTOL* sample and the P.A. picked it up. Our eyes bugged as he took out a spotless handkerchief and dusted it off. "This one's worth looking into, Jack. It'll lower costs and save us a lot of purchasing and production problems if it shapes up for our needs."

"Jack's overloaded, but I think he'll give your sample some action," the P.A. said. He tossed a now filthy handkerchief into his desk drawer. "Check back in a month."

We were back before the month was over —to thank him for an initial order. Seems the "handkerchief trick" had worked—our ACINTOL Fatty Acids sample had passed with flying colors.

Your own drying and semi-drying oil requirements are worth weighing against the performance and reaction versatility of ACINTOL Distilled Tall Oils and Fatty Acids. Consider, too, Arizona's unique position as the largest producer of tall oil products. Call on Arizona.

*Reg. U. S. Pat. Off.

Arizona
CHEMICAL COMPANY
(INCORPORATED)
30 Rockefeller Plaza, New York 20, N. Y.

World's largest supplier of chemicals based on tall oil

DISTRIBUTORS: A. J. Lynch & Co., Los Angeles, Alameda • Charles Albert Smith Ltd., Toronto, Montreal and Vancouver • The Nottingham Co., Atlanta • T. G. Cooper & Co., Inc., Philadelphia • Farac Oil & Chemical Co., Chicago • George E. Moser & Son, Inc., Detroit • Donald McKay Smith Co., Cleveland • Thompson-Hayward Chemical Co., Houston and New Orleans • Van Waters & Rogers, Inc., Dallas N. S. Wilson & Sons, Boston • M. J. Daly Company, Ludlow, Ky. • Great Western Chemical Co., Seattle and Portland, Ore.

Let your salesmen demonstrate their way to a greater liquid sales volume with a...

DEMA *PROPORTIONER for efficient liquid dispensing at the point of consumption...*

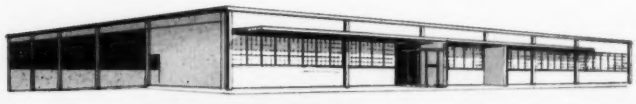
MODEL 167: For alternate clear water and metered mixtures. Push-button control for instant and positive material cutoff.

MODEL 168: For constant metering of sanitizers and disinfectants . . . Stainless steel construction.

Efficient metered dispensing is your answer to sales resistance created by unit costs of many liquid materials. Overcome this objection by showing the positive constant control of materials possible with a DEMA proportioner. Put the compact DEMA in your buyer's hands . . . to study the fine engineering of this precision metering device.

To arrange a working demonstration, connect the DEMA proportioner to a faucet and attach the length of polyvinyl hose furnished, to the proportioner, drop the end of the hose with the check valve into the material to be dispensed, and you are ready to prove that economy and user convenience is possible in liquid material use.

There is a standard DEMA model for most liquid detergents, sanitizers, and cleaners. For special applications or materials, a proportioner can be engineered to solve your problems. Write today for complete details and specifications.



DEMA ENGINEERING COMPANY

Designers and Manufacturers of Automatic Dispensing Devices

702 E. Big Bend Blvd., St. Louis 22, Mo.

responsible for research, development and technical service on industrial and household detergents. He will work under Dr. M. J. Kelley, director of Nopco's specialties laboratories.

—★—

Two New Ottawa Reps.

Ottawa Chemical Co., Toledo, recently announced the appointments of Thornley Co., Wilmington, Del, and Whittaker, Clark and Daniels, Inc., New York, as sales representatives for its "Ottasept" germicidal additive. The product is used in the manufacture of soaps, detergents and many cosmetic and pharmaceutical specialties.

Marketing area for the Thornley firm will include southern New Jersey, Pennsylvania, Maryland and the District of Columbia. Whittaker, Clark and Daniels will represent "Ottasept" in New York State and in New England.

—★—

Solvay Names Noble

Appointment of A. Gregg Noble as assistant to the director of operations of the Solvay Process Division of Allied Chemical & Dye Corp., New York, was announced recently by I. H. Monro, Solvay president. For the past 11 years, Mr. Noble had been manager of the division's chromium chemical plant at Baltimore. He will be succeeded in that post by Robert E. James, who had been assistant manager. Edward J. Walsh will become assistant manager of the Baltimore works, according to Mr. Munro.

A. Gregg Noble

When your customer sees—and smells—how quickly and effectively MEELIUM works, how spring-fresh it makes the air, it can mean more sales for you.

MEELIUM works effectively because it neutralizes and destroys both organic and inorganic odors completely—it doesn't merely cover them up. And it can do the job in an average-sized room in from 3 to 5 seconds—your customer will like this kind of economy, too.

MEELIUM in suggested concentrations is chemically stable, non-corrosive, and about equal in toxicity to pyrethrins. It is supplied to the aerosol industry as a 60% active deodorant.

MEELIUM is practically odorless. If a fragrance is desired we suggest a maximum of .1% of a suitable perfume.

WRITE TODAY FOR COMPLETE DETAILS ON ECONOMICAL MEELIUM FORMULATIONS AND CONTRACT PRICE SAVINGS.

TRY THESE PRENTOX PYRONYL AND PYRETHRUM PEST-TESTED PRODUCTS

Pyrethrum Extract #20 • Pyrethrum Extract #100 • Pyrethrum Extract 20% • Pyronyl #20 Pyronyl #100 • Universal Concentrate • Pyronyl #101 • 50-5 Oil and Emulsifiable Concentrate 40-5 Concentrate • 20-8 Concentrate • 66-6 Oil and Emulsifiable Concentrate • Pyronyl 75—The Oil-Free Concentrate • Roach Spray Concentrate • Pyrethrum Powder • Dust Concentrates

PRENTISS DRUG & CHEMICAL CO., INC.

101 West 31st Street, New York 1, N. Y. • 9 South Clinton Street, Chicago 6, Illinois

DETROIT • SAN FRANCISCO • LOS ANGELES • TORONTO • MONTREAL

Annual Convention

Time is short if you do not want to miss this big annual convention issue . . .

Copy closing date for advertising is *January 10!*

If you want further information, wire us collect today.

The special annual Convention and Trade Show issue of MAINTENANCE & SANITARY SUPPLIES will be the February issue this year. Here is the opportunity to blanket the sanitary supply and equipment jobbers with your advertising — tell your sales story to more jobbers than ever before where it will be read carefully . . .

In this annual convention issue of MSS, your advertising will be read by more than 5,800 jobbers of sanitary supplies and equipment, — janitor supply jobbers, paper jobbers, school supply jobbers, hotel, restaurant, club and bar supply jobbers, hardware distributors, and others jobbing sanitary supplies, who sell *over a billion dollars worth* of sanitary supplies and equipment annually . . .

Plus a copy of this issue of MSS distributed to everybody who attends the annual Trade Show of the National Sanitary Supply Association in New York, February 22-25, 1958.

Over 5,800 sanitary supply jobbers will read this issue!

MAINTENANCE & SANITARY SUPPLIES

Member BPA

Issue...

MAINTENANCE and SANITARY SUPPLIES

FEBRUARY 1958

for distribution at the NSSA's 1st New York Show

. . . copy closing January 10.

If you want your advertising to be read by over 5,800 sanitary supply jobbers plus everybody attending the annual convention and trade show

. . . don't miss this special issue!

Advance reservations guarantee this will be the biggest jobber show in history.

....published by MacNAIR-DORLAND COMPANY

254 West 31st St., New York 1, N. Y.

To make a good shampoo...

You need CARBIDE'S Ethanolamines

Good detergent action, mild alkalinity, and bland skin action—are three reasons why soaps based on mono-, di- or triethanolamine are used to make fast selling hair shampoos. For example, a good shampoo is made from a coconut oil soap of triethanolamine which combines excellent detergent, lathering, and rinsing properties. Suggested formulations for shampoo concentrates made with triethanolamine or mono- and triethanolamine soaps are given in "Emulsions and Detergents". In fact, this 92 page booklet contains a section on all types of detergents.

"Emulsions and Detergents" also provides valuable technical information and suggested formulations for solvent emulsions, "soluble" oils, wax emulsions, and oil and wax polishes. You'll want this booklet for everyday reference. To receive a copy fill in this coupon and send in today.

In Canada: Carbide Chemicals Company, Division of Union Carbide Canada Limited, Montreal.

Union Carbide Chemicals Company, Room 328, 30 East 42nd Street, New York 17, N. Y.

SEND ME A COPY OF THE 92 PAGE BOOKLET—"Emulsions and Detergents"

Name .....

Company .....

Address .....

City ..... State .....

UNION CARBIDE

CHEMICALS

Union Carbide Chemicals Company
Division of Union Carbide Corporation
30 East 42nd Street, New York 17, N. Y.

"Union Carbide" is a registered trade-mark of Union Carbide Corporation.

Slipiec to Geigy

Roy E. Slipiec has joined Geigy Industrial Chemicals Division of Geigy Chemical Corp., Ardsley, N. Y. as midwest sales representative, it was announced recently. He will headquarter at the company's Chicago office. Mr. Slipiec formerly was associated with Gallowhur Chemical Corp., Ossining, N. Y. and Movidyn Corp., Chicago.

Roy E. Slipiec

—★—

New Rokeach President

Benjamin Wheeler has been elected president of I. Rokeach and Sons, Inc., Flushing, N. Y., it was announced recently by the board of directors. Formerly vice-president and treasurer of the company, Mr. Wheeler succeeds W. Henry Gamson, who has been elected board chairman. Mr. Gamson had served as president for two years. Rokeach manufactures kosher soap and related kosher household cleaning products.

Benjamin Wheeler

Mr. Wheeler said that plans for the expansion of the company's production and distribution facilities in the coming year already have been formulated and will be put into operation in the near future.

—★—

Jefferson Names Two Execs.

J. R. Carlson has been appointed to the newly created position of sales manager by Jefferson Chemical Co., Houston, Tex., effective Nov. 1. At the same time P. R. Monaghan succeeds Mr. Carlson in his former post as regional manager of the eastern region. Both appointments were announced late in October by D. L. Griswold, general manager of Jefferson's marketing department.

All regional managers and the manager of Jefferson's alkali sales division report to Mr. Carlson in his new position. He is located at the firm's headquarters in Houston, Tex.

with

Emery Vegetable Fatty Acids

...you can always depend on their uniform, high quality!

Mr. Soapmaker: Emery Vegetable Fatty Acids hold no shocking surprises...every shipment performs exactly like the one before ...high quality is consistent. This is your best assurance of outstanding soaps, toiletries, and specialties that will keep your customers pleased time after time.

Any of these high-quality, consistent performers will enhance the appeal of your products: Emery 600 Dist. Cottonseed Type, Emery 610 Dist. Soya Type, Emery 621 Dist. Coconut Type, Emery 622 Double Dist. Coconut Type, Emery 630 Dist. Corn Type, and Emery 640 Dist. Palm Type. Write Dept. **S-11A** for specifications or evaluation samples.

Emery Fatty Acid Sales Dept.

Emery Industries, Inc., Carew Tower, Cincinnati 2, Ohio

New York • Philadelphia • Lowell, Mass.
Chicago • San Francisco • Cleveland
Ecclestone Chemical Co., Detroit
Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles
Export: Carew Tower, Cincinnati 2, Ohio
In Canada: Emery Industries (Canada) Ltd., 639 Nelson St., London, Ontario

CSMA Proceedings

A review of proceedings of the 43rd mid-year meeting of the Chemical Specialties Manufacturers Association, held May 20-22 in Chicago, has been compiled and published in a 193-page, paper bound volume by CSMA, 50 East 41st St., New York 17. Included in the contents of the eight and one-half by 11-inch book are all reports, papers and discussions at general sessions and divisional meetings. Also listed are current CSMA officers, members of the board of governors, committee members, and the general association membership. Copies, which were sent free of charge to each registrant at the meeting, are available from CSMA for $7.50.

—★—

Ungerer Honors Voorhees

Kenneth G. Voorhees, president of Ungerer & Co., New York, was presented with a gold watch in commemoration of his 25 years service with Ungerer, at a company luncheon held last month. About

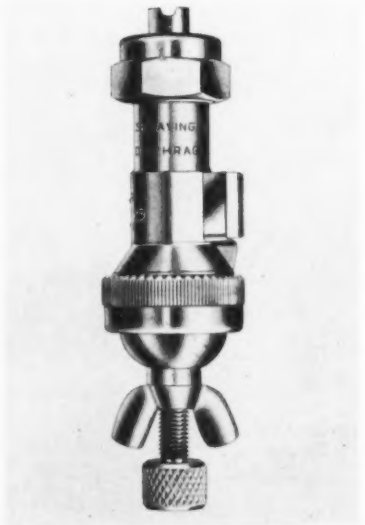
Kenneth G. Voorhees

50 members of the organization attended the celebration. Mr. Voorhees joined the company in 1932 and became president in 1949.

—★—

New Spray Nozzle

A new diaphragm spray nozzle, equipped with a manually operated shut-off assembly, was introduced recently by Spraying Systems Co., Bellwood, Ill. Designed primarily for manifold installations where selected nozzles must be independently shut-off, the new nozzle is made of brass and has an internal monel metal strainer. A wide choice of interchangeable orifice tips are available in full cone, hollow cone and flat spray patterns, according to the manufacturer. Construction of the nozzle includes a diaphragm valve, shut-off screw and wing nut.



Another Shanco **FIRST**

SHANCO 340

A Dispersible Resin For Your

PLASTIC BASE FINISHES

A Styrene-Vinyl Type Resin
in
Solid Form — Ground

- **LOW COST**
- **NO WATER**
- **SAVE FREIGHT**
- **EASY HANDLING**

—★—

Write for Samples and Literature.

—★—

SHANCO PLASTICS & CHEMICALS, INC.
TONAWANDA, NEW YORK

Breck Names Glynn

Appointment of Thomas M. Glynn as plant manager for John H. Breck, Inc., Springfield, Mass.,

Thomas M. Glynn

was announced late in October by Edward J. Breck, president. Mr. Glynn joined Breck in 1943, served in the firm's accounting, purchasing, and production control departments until 1946, when he became production manager.

★

Appoints Untermohlen

William P. Untermohlen, Jr., has been named director of research of Velsicol Chemical Corp., Chicago, it was announced recently by Robert O. Sauer, vice-president of research and development. In his new post, Dr. Untermohlen will be responsible for all research involving polymers, organic processes, resin applications and industrial chemicals. Prior to joining Velsicol, he was assistant research director of the Toni Division of Gillette Co. Before that he was associated with Tennessee Eastman Corp. and the Institute of Textile Technology.

William P. Untermohlen

★

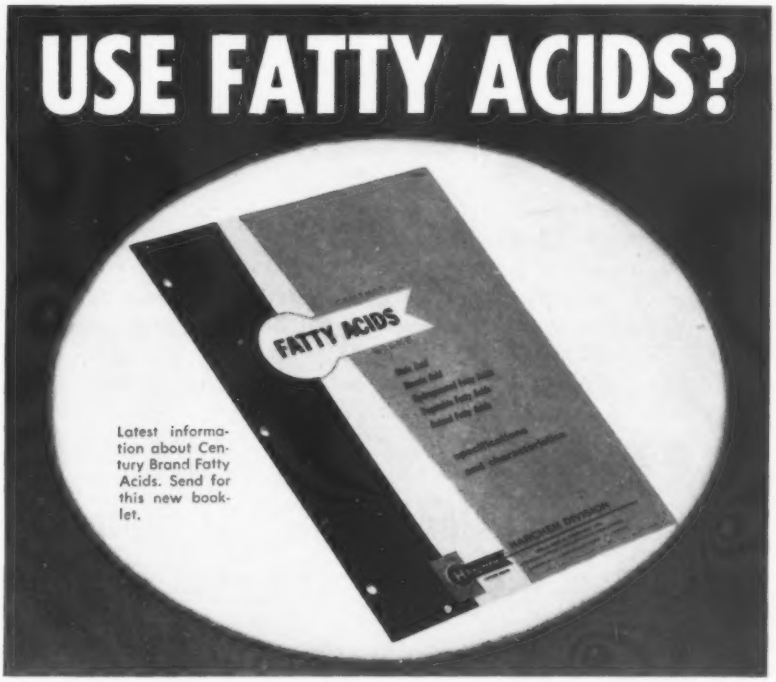
Named to Red Cross Post

J. Albert Woods, president of Commercial Solvents Corp., New York, recently was elected chairman of the New York Chapter of the American Red Cross. He has been a member of the New York Chapter board since 1955.

Evans New Diamond Head

Raymond F. Evans has been named president of Diamond Alkali Co., Cleveland, it was announced recently by the board of directors. Formerly board chairman and chief executive officer, Mr. Evans succeeds John A. Sargent, who recently resigned. In addition, the board created the position of executive vice-president and elected A. H. Ingley, senior vice-president, to the post. Mr. Sargent has joined General Foods as a vice-president.

USE FATTY ACIDS?



Latest information about Century Brand Fatty Acids. Send for this new booklet.

HARCHEM INVITES YOU TO COMPARE

If you use Fatty Acids you will want Harchem's new publication of specifications and characteristics for their Century Brand Fatty Acids. Harchem gives you the latest data about all grades in their complete line of uniform quality fatty acids. You are the best judge of the type and grade you need. By using this information as a basis for comparison, you can select the fatty acid best suited for your specific use.

Harchem offers you a free type sample of the kind and grade Century Brand Fatty Acid you specify. We invite you to make comparisons with any competitive product of like grade.

Write us on your letterhead for a copy of our new publication. Ask for Bulletin H-29.

HARCHEM CENTURY BRAND

HARCHEM DIVISION

WALLACE & TIERNAN, INC.
25 MAIN STREET, BELLEVILLE 9, NEW JERSEY
IN CANADA: W. C. HARDESTY CO. OF CANADA, LTD., TORONTO

Penick "Warfarin" Contest

S.B. Penick & Co., New York, recently announced a dealer display contest open to all dealers selling products containing "warfarin" rodenticide. First prize is $1,000 in cash.

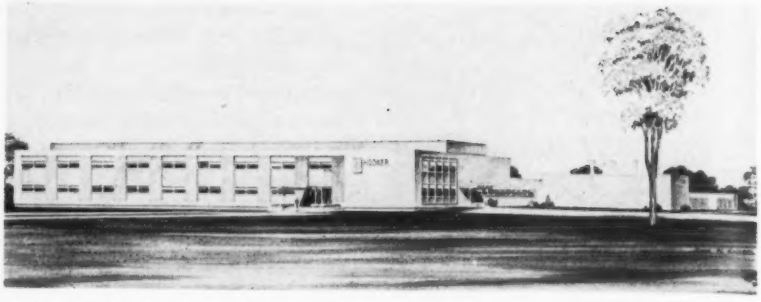
Contest rules call for dealers to set up a "warfarin" display for two weeks between now and Dec. 15. Each dealer must submit a photograph of his display along with an entry blank. All entries must be submitted before Nov. 30.

In addition to the prize for the winning dealer, Penick will award two prizes of $500 each to distributors' salesmen. One prize will go to the salesman selling the winning dealer, and another to the salesman submitting the most dealer entries.

—★—

Shulton Names Theile

Appointment of Fred Theile as perfume administrator for the perfume department of Shulton, Inc., Clifton, N. J., was announced recently by George L. Schultz, president. For the past six years, Mr. Theile had been production manager of Shulton's fine chemicals division. Prior to that, he was associated with Norda Essential Oil and Chemical Co., New York.



Architect's drawing of new Grand Island, N. Y., research center of Hooker Electrochemical Co., Niagara Falls, N. Y. Construction of the $3,500,000 unit began last month and is expected to be completed by late 1958 or early 1959. Located on a 61-acre site about six minutes drive from Hooker's Niagara Falls plant, the center will contain about 69,000 square feet of floor space. The main two-story area, 244 feet long and 105 feet deep, will consist of a reception foyer, research administration and stenographic sections, research laboratories, a two-story library and a conference room. A connected single-story area will include a lunch room, glass-blowing shop, glassware washing area, central storage and solvents storage space. The services section will include equipment for operation of the main section and serve as a receiving area for laboratory supplies.

—★—

New Hollingshead Catalog

A new catalog describing and illustrating its complete line of industrial maintenance chemicals was issued recently by R. M. Hollingshead Corp., Camden, N. J. The bulletin includes information on floor finishes, waxes, soaps, sealers, polishes and cleaners. All available sizes are listed. The four-color catalog is punched to fit all standard loose-leaf sales binders, and folds out into a spread for use as a well chart or in point-of-sales display. Copies are available.

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In New Westvaco Post

Westvaco Mineral Products Division of Food Machinery and Chemical Corp., New York, has

Donald C. Oskin

named Donald C. Oskin as vice-president and assistant division manager in charge of marketing. Mr. Oskin has also been appointed permanent chairman of Westvaco's division development committee. Formerly sales manager, he will be succeeded by James R. Harris.

Mr. Oskin joined Westvaco's sales department in 1945. As a district sales manager in Detroit, he supervised alkali sales from 1947 to 1949 and phosphate sales from 1949 to 1950. He was appointed director of the New York sales district in 1951 and three years later became division sales manager.

With the company since 1949, Mr. Harris was named manager of phosphate sales in 1950. Four years later he became assistant manager of sales for the division, a post he held until his present appointment.

—★—

Tailor Made Packing

Calcined diatomite aggregates, specially treated and screened for use in vapor phase chromatography are being offered by Celite Division of Johns-Manville, New York. "Chromosorb" column packing comes in regular and acid washed grades in three different mesh ranges: 35-80; 30-60; and 10-30. The pale pink granules are packaged either in one pound glass bottles with six bottles to a carton, or in 50 pound fiber drums.

Special grades with particle sizes tailor made to specifications are available in 100 pound minimum quantities on a 60 day delivery basis.

"Chromosorb" comes in the form of inert uniform granules having high absorptive capacities. The packing is reusable owing to its physical stability and negligible adsorption.

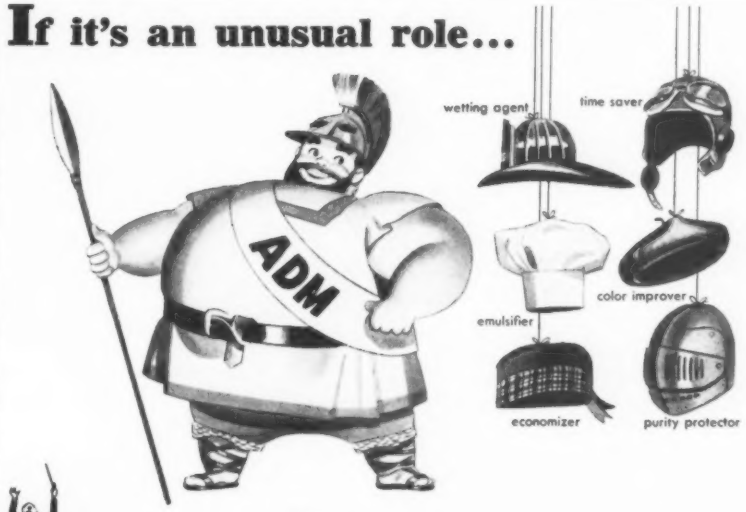
Additional information may be had from Celite Division at 22 East 40th Street, New York, N. Y.

—★—

Air Reduction Expands

Air Reduction Chemical Co., New York, has opened a new sales office at 3100 South Homan Avenue, Chicago, it was announced recently by J. M. Tinnon, sales manager. The new branch will be operated under the direction of R. C. Gilardi.

If it's an unusual role...



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		Iodine Value	Titer	Color (Gardner)	Acid Value
LINSEED	Water White Distilled	180 Min.	17-20	3 Max.	197-204
	Regular Distilled	157 Min.	18-24	6 Max.	197-204
	SM-500	152 Min.	18-24	10 Max.	195-204
SOYA	Water White Distilled	135 Min.	20-23	2 Max.	195-205
	RO-10	124 Min.	23-29	5-6 Max.	195-205
	RO-11-S	124 Min.	23-29	4 Max.	195-205
SOYA-TYPE	RO-8	115 Min.	30 Max.	6-8	195-205
COTTONSEED	Double Distilled	95-110	32-38	8 Max.	195-205
CORN	Double Distilled	105-120	26-32	8 Max.	195-205

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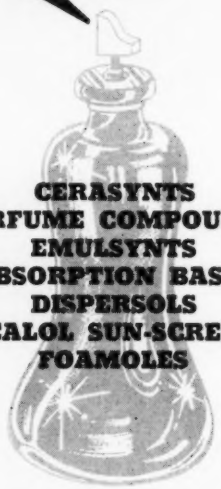
with van dyk's raw materials



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FOAMOLES

Putting cosmetics in aerosols involves many technical considerations. The cosmetic base, the perfume, the propellant, the container, and the valve are only part of the problem. The manufacturer must be sure that each component is entirely compatible with the others. He must be absolutely positive that it remains that way until the customer throws the empty container away.

Van Dyk can help you aerosolve your problems. When your formula calls for ingredients that must be foolproof, use Van Dyk's raw materials. They undergo extensive aerosol testing to assure uniformity and efficiency for your product. Van Dyk's research staff will gladly assist you with formulations.

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More "A-C" Polyethylene

Semet-Solvay Petrochemical Division of Allied Chemical & Dye Corp., New York, recently announced expansion of its Buffalo, N. Y., facilities for the manufacture of water emulsifiable polyethylene. Marketed as "A-C Polyethylene 629" this compound has found one of its major market outlets in the polish field. Compatible with anionic, cationic and nonionic surface active agents, the polymer is said to combine ease in handling with fine particle size and good emulsion stabiliy. Polishes formulated with emulsifiable polyethylene are claimed to have improved physical and wearing properties.

★

Brake Fluid Bills

Senate Bill 286, regulating the sale of brake fluid in Oklahoma was approved and became effective May 28, 1957. SAE 70-R-1 heavy duty fluid is specified as the minimum for sale in the state. Registration is required by the bill, a fee of $50.00 per brand is charged and annual renewals cost $35.00 per brand.

Applications for registration should be addressed to: The Corporation Commission of Oklahoma, Oklahoma City 5; attention of Mr. William C. Smith, director.

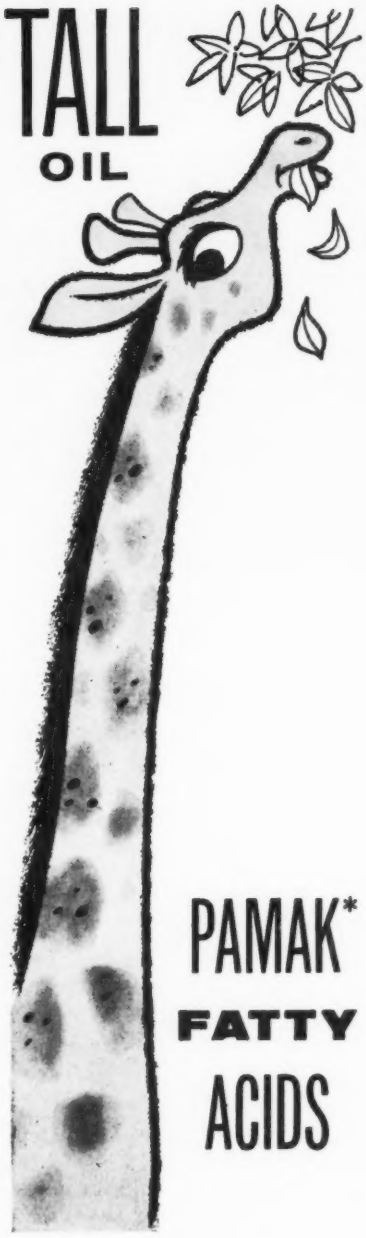
Texas Senate Bill 145 also requires that brake fluid sold in the state must conform with SAE 70-R-1; calls for filing fee of $50.00. Applications for registration under the law which becomes effective January 1, 1958, should be addressed to: Texas Department of Public Safety, P.O. Box 4087, North Austin Station, Austin, Tex.; attention of G. W. Busby, chief, Inspection and Planning Division.

★

Robert J. Jones Dies

Robert J. Jones, 80, who owned and operated Jones Products Co., a Milwaukee insecticide firm, died Oct. 17 in his home in that city. The firm, which Mr. Jones operated for 20 years at 2437 West Fond du Lac Ave., was disbanded after his retirement in 1953. Surviving are his wife, and brother.

TALL OIL



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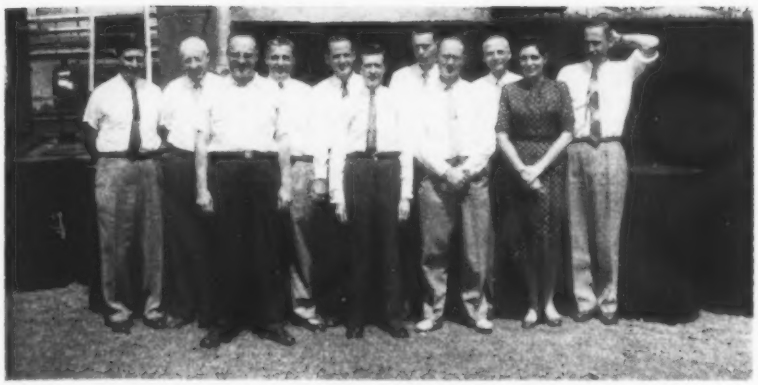

Sales personnel of Chemo Puro Manufacturing Corp., Newark, N. J., gathered recently at company's plant in that city for annual sales meeting. Among items discussed were plans for an expanded nationwide sales program in the coming year. Shown, left to right, are: K. S. Kohorn, New York metropolitan area pharmaceutical representative; S. S. Farmer, west coast representative; J. V. Demarest, southeastern representative; R. E. Davis, midwestern field sales manager; P. R. Ries, Chicago representative; C. J. Haight, New York metropolitan industrial sales representative; R. J. Wendt, north central representative; P. C. Hereld, executive vice-president; T. G. Wrigglesworth, Ontario representative; Miss Doris Bond, pharmaceutical sales manager; A. J. Street, Quebec rep.

TGA to Meet Dec. 9

The 26th meeting of the scientific section of the Toilet Goods Association, New York, will be held on Monday, December 9, in the Sert Room of the Waldorf-Astoria Hotel, New York, it was announced recently. Papers to be presented include:

"Polyoxyethylene Gums in Toilet Goods" by Lloyd Osipow, Foster D. Snell, Inc., and Lester D. Berger, Jr., Union Carbide Chemicals Co.; "Cutaneous Antiseptic Activity of 3, 4, 4'—Trichlorocarbonilde," by Daniel P. Roman and E. Harvey Barnett, Monsanto Chemical Co.; "The Effect of Fluorides on the Solubility of Powdered Tooth Enamel," by S. D. Gershon, O. W. Neiditch and R. H. C. Lee, research and development division, Lever Brothers Co.; "Use of Patch Test in Eliminating Dermal Hazard," by Harry L. Rubenkoenig and Robert A. Quisno, Hilltop Research Institute; "Silicone Defoamers—Physiological Aspects and Defoaming Efficiency," by R. C. Gergle, W. T. Gregory and C. W. Todd, Dow Corning Corp.; "Further Laboratory Studies of Potential Anti-Seborrhoeic Agents," by Dr. Irwin I. Lubowe, assistant clinical professor, department of dermatology, New York Medical College, Metropolitan Hospital Center; "The Effect of Creams and Lotions on the Moisture Retention on the Skin," by Donald H. Powers and Charles Fox, Warner Lambert Pharmaceutical Co.

★

Borax Names Two

John D. Moore has been appointed national sales manager and Marc Sessions director of product development for the 20 Mule Team Products Division of United States Borax & Chemical Co., Los Angeles, it was announced by David V. Parker, vice-president.

Mr. Moore, who assumed his new post on Nov. 1, is in charge of the company's twelve sales districts throughout the country. He will headquarter at the firm's New York office. Prior to joining Borax, he served as sales representative for Charles E. Hires Co., and Campbell's Soup Co.

Mr. Sessions previously was the division's western sales manager. He will headquarter in Los Angeles. He joined the company in 1946 as sales representative after having owned his own business in Salt Lake City.

★

Entomologists to Meet

Over 200 papers are scheduled for presentation at the fifth annual meeting of the Entomo-

(*Turn to Page* 195)

ULTRAGRAM

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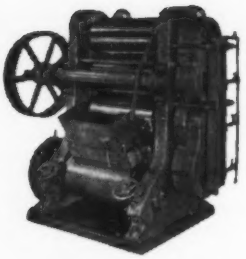

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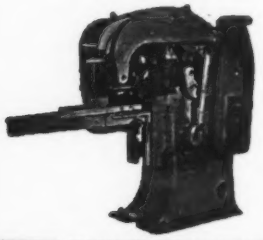
3 Roll — 4 Roll — 5 Roll
STEEL and Granite Rolls



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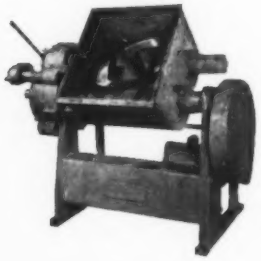

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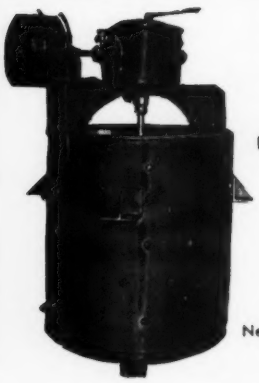

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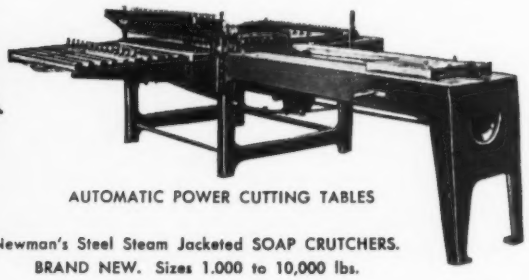

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For Sale: Houchin 9 x 24″ 3-roll mill, inclined water cooled steel rolls, 7½ h.p. motor. Houchin 6″ plodder, 5 h.p. motor. Houchin #4 soap press. Send for Bulletin A-39. We buy machinery. The Machinery & Equipment Corp., 293 Frelinghuysen Ave., Newark 12, N. J.

For Sale: Equipment from soap plant—Proctor & Schwartz single drum flakers 6′ long; Glycerine evaporators; Ribbon mixers 48, 56 cu. ft.; 1900 gallon jacketed crutchers. Perry Equipment Corp., 1410 N. 6th St., Phila. 22, Pa.

Interested in Chemical Specialties. See page 116 for more complete details.

New Ester Wax

A new fatty alcohol ester wax was introduced recently by Werner G. Smith, Inc., Cleveland, O. Trade-named "Hywax 135", the product is suggested for use as a superfatting agent in detergents, for incorporation in rust inhibitors, lubricants, and textile chemical specialties.

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Full details and technical advice are available upon request to Werner G. Smith, Inc., 1730 Train Avenue, Cleveland 13.

★

P & G Three Month Net Up

Procter & Gamble Co., Cincinnati, late last month reported a substantial increase in profit for the three months ended Sept. 30. The company's net income totaled $20,708,480, equal to share earnings of $1.02. This compared with $18,757,920 and 96 cents in the similar period of a year ago.

Letters

(*From Page* 33)

University of Illinois until earlier this year. It was my privilege to review your magazine and now I feel I need to obtain a copy regularly for my own personal use.

Maurice R. Blue
Midland Laboratories,
Kokomo, Ind.

(*Reference Books see page* 196)

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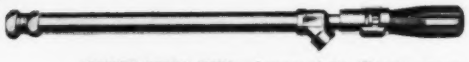

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(*From Page* 187)

logical Society of America, to be held Dec. 2-5 at the Peabody Hotel, Memphis, Tenn. The technical program will be preceded by business meetings of the society and of the six sections of which it is composed. On Monday evening, Dec. 2, there will be a mixer and on Tuesday evening, Dec. 3, the Entomologists' Banquet. The meeting will open on Monday morning with an address by H. M. Armitage, president of the group, who will speak on "Man in An Insect World."

Fly control will receive extensive attention in a number of papers in section D, Medical and Veterinary Entomology. Fly resistance, fly control in dairy barns and on cattle, and the efficiency of repellents and various types of toxicants will be discussed. Mosquito control and resistance will be treated in a series of talks in the same section.

A number of motion pictures will be shown as part of the technical program and exhibits will be on display throughout the meeting.

Sales Clinic

(*From Page* 81)

Four "don'ts" listed by Mr. Krech included: "1.) Don't take anything for granted; 2.) Don't expect reciprocity to sell for you; 3.) Don't use gratuities or excessive entertainment; 4.) Don't ever neglect a customer when pressured to increase sales through new business."

"It takes less effort to keep an old customer satisfied than to get a new customer interested," Mr. Krech concluded.

The "job content" of chemical selling was outlined in a talk, "Selection and Training of Salesmen," by Elmer F. Schumacher, former general director of sales, Polychemicals Department, E. I. du Pont de Nemours & Co., Wilmington, Del. These four points characterizing the job of the industrial salesman in Mr. Schumacher's opinion are:

1.) He must be a producer of business; 2.) He must identify, motivate and harmonize all the buying influences in a market or customer favorably to the enlargement of the business, bringing to bear all available forces to that end; 3.) He is accountable for securing in the territory placed in his care the maximum penetration of the products, processes and services assigned to him; and 4.) As the promoter and guardian of the commercial interests of his company, he is ever mindful of good customer and public relations and is a most important source of market intelligence.

★

New Monsanto Offices

Monsanto Chemical Co., St. Louis, last month announced that it has moved its general offices in that city to a newly-constructed building at Lindbergh and Olive Street Road in St. Louis County. In addition to the general office structure, the new site includes executive and utility buildings. Each facility contains three floors and together will provide more than 300,000 square feet of office space.

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and JOHN W. MCCUTCHEON

3. MODERN CHEMICAL SPECIALTIES

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Coming Meetings

American Public Health Association, 85th annual meeting, Public Auditorium, Cleveland, Nov. 11-15.

Association of American Soap & Glycerine Producers, 31st annual convention, Waldorf-Astoria Hotel, New York, Jan. 22-24, 1958.

Chemical Industries, 26th Exposition, Coliseum, New York, Dec. 2-6.

Chemical Market Research Association, joint meeting with Commercial Chemical Development Association, Shamrock Hotel, Houston, Tex., Nov. 20-21.

Chemical Specialties Manufacturers Association, 44th annual meeting, Hollywood Beach Hotel, Hollywood, Fla., Dec. 9-11; 44th midyear meeting, Netherland Hilton Hotel, Cincinnati, May 19-21.

Cosmetic Industry Buyers & Suppliers Association, annual Christmas party, Waldorf-Astoria Hotel, New York, Nov. 30.

Entomological Society of America, annual meeting, Peabody Hotel, Memphis, Tenn., Dec. 2-5.

Grocery Manufacturers of America, 49th annual meeting, Waldorf Astoria Hotel, New York, Nov. 11-13, 1957.

Manufacturing Chemists Association, seventh semi-annual meeting and winter conference, Statler Hotel, New York, Nov. 26.

National Hotel Exposition, 42nd show, Coliseum, New York, Nov. 11-15.

National Sanitary Supply Association, 35th annual convention and trade show, Coliseum, New York, Feb. 22-25.

Packaging Machinery & Materials Convention, Convention Hall, Atlantic City, N. J., March 25-28, 1958.

Plant Maintenance & Engineering Show, 9th annual exposition, International Amphitheater, Chicago, Jan. 27-30.

Society of Cosmetic Chemists, 12th annual meeting, Commodore Hotel, New York, Dec. 10.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meetings, Roosevelt Hotel, New York, Nov. 12, Jan. 7, Feb. 11, annual dinner, Dec. 4.

Toilet Goods Association, 23rd annual convention, Poland Spring House, Poland, Maine, June 25-29, 1958; scientific section, Waldorf Astoria Hotel, New York, Dec. 9, 1957, and June 5, 1958.

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Tale Ends

TAKE five years off a women's age and she'll thank you no end. Do the same thing for any business in the U. S. and watch the sparks fly. We know, because in our September issue we inadvertently chopped five years off Fuld Brothers, Inc., Baltimore. The firm is particularly proud of the fact that 1957 is its 30.h year. We hope brothers Mel and Joe have it in their hearts to forgive us.

* * * * *

If we had received one more birth announcement in October we were all for making it "National Cigar Month." Chronologically and alphabetically, Mrs. A. R. ("Al") Marks added No. 6 to the Marks' household. The newest addition, Dorothy Ruth, was born Oct. 1 at Newcomb Hospital, Vineland, N. J. Poppa is technical sales manager of the aerosol division of Wheaton Plastics Co., Mays Landing, N. J. The Marks' now have three boys and three girls. Al's oldest boy is a married 20-year-older.

The Varley's of St. Louis have two reasons for celebrating—no, not twins. Jack Varley became a grandpa when Jack, Jr., and wife, Pat, announced the arrival on Oct. 1 of Michael Chris. Not to be outdone, the wife of James G. Varley, vice-president of James Varley & Sons, also known as "Little Jim" or "Young Jim," gave birth to Joy Linton Varley. Joy is the second girl and sixth child of the Jimmy Varley's.

* * * * *

Odd names being added to the roster of the Chemical Specialties Manufacturers Association include American Snuff Co. and Philip Morris, Inc. Someone wanted to know if cigarettes could be considered as chemical specialties.

Speaking of Philip Morris, which took over Franklin Research Co., Philadelphia, last month in a move that was not exactly the best kept secret in history, many people are wondering why. The answer given to us is that the PM people felt S. C. Johnson was not getting enough competition in the small package household products field. Also of interest is the fact that Dr. Robert N. Du Puis, vice-president and director of research at the Richmond, Va., labs of Philip Morris, up until about five years ago was a research man for Johnson in Racine.

* * * * *

According to the advance program of the fifth annual meeting of the Entomological Society of America to be held at the Peabody Hotel in Memphis next month, Arnold Mallis, Al Miller and R. C. Hill of Gulf are scheduled to give a paper on fabric pests. The abstract of the paper mentions the "wedding clothes moth." We are wondering if this pertains to the diet or dress of the insect.

* * * * *

We're afraid the mid-year meeting in Cincinnati next May is going to seem awfully prosaic after the wing-ding CSMA has planned for Hollywood Beach next month. In order to be on time for the meeting, which begins on Monday morning, Dec. 9, many of the Hollywood bound contingent will shove off on Friday afternoon, Dec. 6. The meeting, which runs through the 12th, will break on the 13th, meaning that delegates will be getting home on the 13th or 14th. This should set some sort of an endurance record.

* * * * *

Harry Armitage, Emery's veteran New York manager, wanted us to be sure to mention that Mrs. Annabelle R. Farrell, his gal Friday, received her 25 year pin and became the first woman member of Emery's 25 Year Club during ceremonies in Cincinnati, last month. J. J. Emery, president of the company also presented her with a very beautiful diamond wrist watch on completion of her 25 years with Emery. Mrs. Farrell is active in the Cosmetic Career Women and served on its board of governors.

* * * * *

Soap operas have boosted their radio ratings of late, they tell us. By some this is credited to the introduction of new and more risque subjects like child birth, premarital love, delinquency, cancer and other once-taboo subjects. The antique motif based on the sanctity of the home and motherhood has gradually gone down the drain. It seems that Mrs. Housewife must like her stories somewhat more factual, more spicy, true to life. Anything to get 'em to watch and listen, say the advertising boys of Madison Ave.

* * * * *

Guess where they're advertising Lehn & Fink's "Lysol" disinfectant? Yup, "Glamour", a leading fashion magazine, carried the first of six insertions in its October issue. It's all part of a plan to promote the product as a household cleaner.

* * * * *

In behalf of its electric shaver, Remington Rand is running a big prize contest which got under way October 1. Firt prize in this gigantic contest is one share of every common stock listed on the N. Y. Stock Exchange. But what gives us something of a shock is the announcement that Remington Rand recently marked the manufacture of its 20 millionth electric shaver. What that spells out in terms of future use of shave cream, we wonder.

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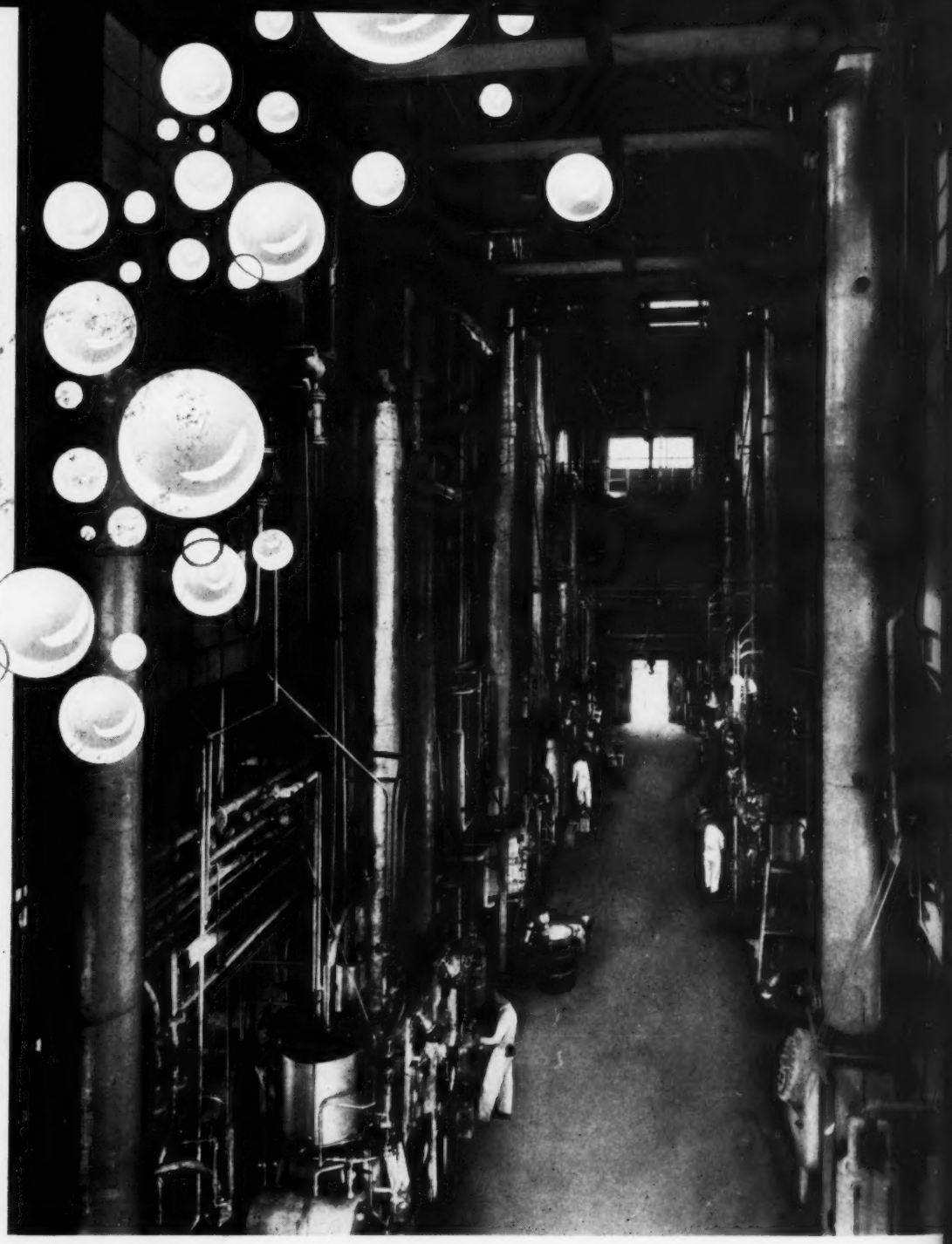

Distillation building (VAH Union Beach, N. J. plant) showing high column stainless steel fractionating equipment. Among numerous VAH technical developments, are new column packing techniques which have added considerably to the efficiency of many distillation processes.

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